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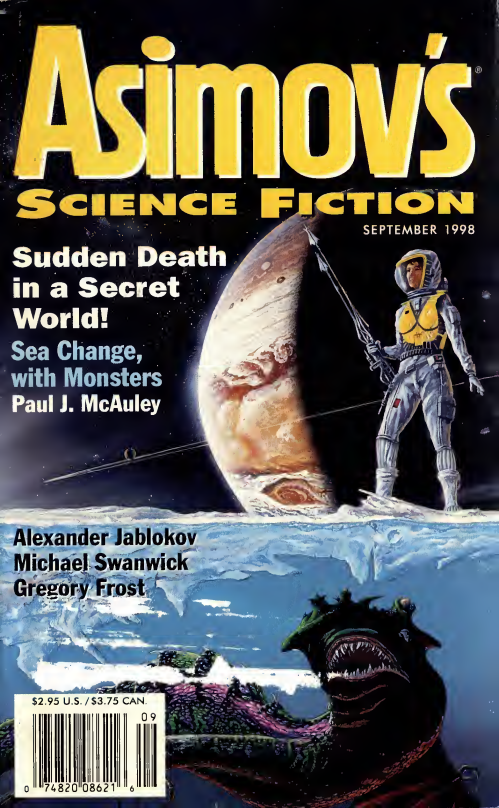
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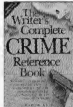
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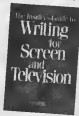
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THE GOLD-DIGGING ANTS OF THE LOST PLATEAU

Here's a lovely fantasy notion that could well come out of one of the novels of H. Rider Haggard, or perhaps some little-known epic by E.R. Eddison: a nearly inaccessible plateau in a remote corner of India, where ants bigger than foxes burrow in sandy soil that is replete with gold dust, thereby pushing mounds of rich ore to the surface, which the natives of the region periodically attempt (at some hazard to themselves, because the ants are very fierce and swift) to collect and carry off.

A lost plateau! Giant ants! Mounds of gold dust! Mountain tribesmen risking their lives to seize the heaped-up treasure! Gaudy stuff, yes. But neither Haggard nor Eddison nor any of our other modern fantasists deserves credit for this particular fable. Its pedigree goes back at least to the Greek historian Herodotus, who wrote in the fifth century BC. Over the next fifteen hundred years it became part of the standard repertoire of tall tales about far-off lands, with many another able hand repeating and sometimes embroidering the story in ingenious ways. But now, thanks to the work of a team of intrepid French explorers of a type that I thought had died out a hundred years ago, it turns out that there's solid substance in the old legend after all.

Herodotus, who was born in the Greek city of Halicarnassus, which was in Asia Minor on the coast of what is now Turkey, traveled widely through the ancient world, listened well to the stories he heard, and wrote a lively and eternally entertaining account of the long, bitter war between the Greeks and Per-

sians that was the great news story of his day. To our enormous benefit he felt it necessary to explain the roots of the Greco-Persian conflict by setting down a full history of the entire ancient world, not just of the Persian Empire but of all the lands that it had conquered or even visited. Thus he gives us an extensive and valuable account of Egypt, a description of the customs of the barbaric nations of Central Asia, and even some details of life in such distant lands as India and black Africa.

Not even Herodotus believed all the stories he passed along to us. As he tells us himself, "My duty is to report all that I have heard. But I am not obliged to think that all of it is true." And so he frequently expresses skepticism of some fantastic story that he recounts for us, remarking, "This, I believe, is but an idle tale," and offering his own more rational explanation of the strange events he has just described.

The famous tale of the gold-digging ants is found in Book III of his history, the section in which he speaks of the far-flung regions that King Darius of Persia had incorporated into his empire. Among them was India, which, Herodotus said, paid Darius an annual tribute of more than twenty thousand pounds of gold dust, the largest sum given by any of the subject nations.

The Indians obtained their gold, we learn, from a bleak desert in the northern part of their country: "In this sandy region are to be found ants somewhat smaller than dogs but bigger than foxes (the Persian king keeps some of these ants, that were

caught in this part of India). The ants make dwellings under the ground, and in so doing they carry up sand in the same way as ants do in Greece; indeed, both kinds of ants are of the same build; and the sand that is carried up contains gold." At dawn, which Herodotus (believing that the world was flat, and the sun rising over all of it at the same moment) imagined was the hottest time of the day in those latitudes, the ants would disappear underground; and as soon as they vanished, Indians who had drenched themselves with water to stay cool would rush into the district of the gold-bearing sands, "fill sacks with it, and ride away homeward with all speed. For the ants no sooner become aware of them, perceiving them by smell, as the Persians think, than they give chase; and this creature being fleetest than any other, unless the Indians took advantage of the time it takes the ants to assemble, not one of them would escape." Herodotus adds that the Indians used she-camels that had recently been separated from their young as their getaway mounts, for "the she-camels never slacken speed, having in mind the young that they left behind."

A good story, yes. Which many a successor to Herodotus picked up and retold, often solemnly avowing it to be gospel.

We first meet the gold-bearing ants again in the writings of Nearchus, a native of Crete who accompanied Alexander the Great of Macedonia on his invasion of India in 325 BC. Nearchus admitted that he had never seen a living specimen, but reported having seen their skins, which traders had brought to the Macedonian camp.

The *skins* of ants? Already the story is beginning to undergo some morphing; for Herodotus had spoken of the ants as "being of the same build" as Greek ants, only much bigger. Greek ants don't have skins, though.

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Not long afterward, the ants turn up again in an account by Megasthenes, who was the Greek ambassador to a royal court in Bengal from 306 to 298 BC. Once again, though Megasthenes still uses the term "ants," they are plainly referred to as creatures with skins—and fur. Curiouser and curiouser.

Various later Greek and Roman writers amplified and embellished these accounts; and their credulous medieval successors—the authors of such fantasies as the so-called Letter of Prester John, the romances with Alexander the Great as their hero, and the travel-tales of Sir John Mandeville—were even more imaginative.

One of the various versions of the Prester John letter, which set all Europe afire with dreams of an invincible Christian king who reigned somewhere in Central Asia, describes the Indian ants as having six feet, wings like those of locusts, and teeth greater than dogs' teeth, as well as tusks larger than those of wild boars, "with which they slay men as well as other animals. And those which they have killed they straightaway devour. Nor is this the only wonder, for they are so fleet of foot that you would think they were flying, and therefore in these provinces men dwell only in safe and well-fortified places." From sunset to dawn, though, the ants remained underground, digging for gold, and it was at that time that the natives left their sanctuaries, hastily gathered up the gold lying about at the surface, loaded it aboard elephants and hippopotami, and fled before the ferocious ants could reappear.

As for Mandeville, whose gallimaufry of imaginary geographical delights was put together in the middle of the fourteenth century, he moves the gold-bearing ants from India to the island of Taprobane—that is, Ceylon. Here, he says, "are great hills of gold," which are assiduously mined by "pismires," as ants were often

called in medieval English. These pismires, Mandeville relates, "are as great as hounds are here, so that no man dare come near them." We are given Herodotus' old story of sneaking up on the gold during the hottest time of the day, when the ants are underground; but Mandeville throws in another stratagem used in the cooler months, which involved sending mares laden with empty baskets into the territory of the ants, who, apparently unable to bear the sight of an empty basket, would immediately go to work filling them with gold. "For the pismires," we learn, "will suffer beasts to go and pasture amongst them, but no man in no wise." These mares had all recently borne foals, which the local people had kept behind in their village. When enough time had passed for the baskets to be filled, the locals caused the foals to start neighing for their mothers, who would thereupon head back to the village, bringing the gold.

These are all very amusing fairy tales; but one complicating fact is that the tribesmen of Kashmir and other northern Indian regions actually did pay tribute in gold dust to Darius of Persia, and referred to it in their own archives as *pipilaka*, "ant gold." So there had to be some nugget of truth beneath all the fabulation; and geographers have speculated for decades on the existence of some actual burrowing creature that really did root around in the gold-bearing sands of some Indian riverbed—for example, the bobac, or Asian marmot, a rodent related to our woodchucks.

Fourteen years ago, the French ethnologist Michel Peissel heard tell of a Tibetan-speaking tribe called the Minaro, who live in a practically inaccessible district on a high plateau in the western Himalayas on the border between Pakistan and India. For generations, he was told, the isolated Minaro, a primitive people who have

retained some stone-age folkways, had collected gold dust from marmot burrows. Was it true? Were these marmots the gold-mining "ants" of Herodotus? Last year Peissel led a band of explorers into the region to find out.

It took that long to mount the expedition because relations between India and Pakistan happen not to be friendly. The Minaro live on the Indian side of the border, but the Dansar plain, which is the place where they collect their gold, is five miles away in Pakistan. But finally Peissel got all the necessary permits. "We went out to the Dansar plain, overlooking the Indus River, at an altitude of some ten thousand feet. It was astonishing. There were the marmots and the burrows and the piles of sand they threw up." And there was the gold, too, from a vein of gold-bearing soil that ran some three feet below the surface.

What's more, these Himalayan marmots, unusually large for their kind, have razor-keen teeth and claws, and will attack anyone who meddles with their burrows with great ferocity. That fits the ancient stories. And so the age-old mystery

of the gold-digging ants seems to have been solved. The discovery may have come just in time, too. The marmots are getting scarce, because the Indian border guards amuse themselves by taking potshots at them.

Why did anyone ever want to call furry woodchuck-like critters "ants," though?

Because, Peissel explains, the ancient Persians used the same word for "marmot" and "mountain ant." Herodotus, who understood Persian only sketchily at best, chose to translate the word into Greek as "ants," and thereby gave rise to centuries of fabulous tales.

All that glisters is not gold, as Shakespeare so accurately observed. But sometimes ants are really woodchucks, and there turns out to be more substance to those ancient legends than we think. ○

Robert Silverberg's collection of essays, *Reflections and Refractions* (Underwood, 1997) has been nominated for a Best Nonfiction Hugo. About half of the collection's material was originally published in *Asimov's*.



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Gardner Dozois

TWELFTH ANNUAL READERS' AWARD RESULTS



Photo credit: Beth Gwinn

Pictured from left to right: Sheila Williams, Bill Johnson, Gardner Dozois, Laurel Winter, and Allen Steele

It's time to tell you the winners of *Asimov's Science Fiction's* Annual Readers' Award poll, which is now in its twelfth year. As always, these were your choices, the stories and artwork and poetry that you—the readers—liked best out of all the stuff we published in 1997. The readers were the only judges for this particular award—no juries, no experts—and, as always, it's intriguing to compare results with the Hugo and Nebula ballots, as well as with the readers' polls conducted by Locus and SF Chronicle. This year's winners, and runners-up, were:

NOVELLA

1. . . . **WHERE ANGELS FEAR TO TREAD, ALLEN STEELE**
2. Messengers of Chaos, G. David Nordley
3. In the Furnace of the Night, James Sarafin
4. Quinn's Deal, L. Timmel Duchamp
5. The Golden Keeper, Ian R. MacLeod
6. Izzy and the Father of Terror, Eliot Fintushel

NOVELETTE

1. WE WILL DRINK A FISH TOGETHER . . . , BILL JOHNSON

2. Three Hearings on the Existence of Snakes in the Human Bloodstream, James Alan Gardner (tie)
2. The Undiscovered, William Sanders (tie)
3. Lethe, Walter Jon Williams
4. The Flag on Gorbachev Crater, Charles L. Harness
5. One Good Juror, James Sarafin and Mary Rosenblum
6. Newsletter, Connie Willis
7. Guest Law, John C. Wright
8. On the Ice Islands, Gregory Feeley (tie)
8. House of Dreams, Michael F. Flynn (tie)
9. Blood and Judgement, John Brunner
10. Death Do Us Part, Robert Silverberg

SHORT STORY

1. THE 43 ANTAREAN DYNASTIES, MIKE RESNICK

2. Payback, Sonia Orin Lyris
3. Always True to Thee in My Fashion, Nancy Kress
4. The Nostalgonauts, S.N. Dyer (tie)
4. The Holy Stomper Vs. the Alien Barrel of Death, R. Neube (tie)
5. Itsy Bitsy Spider, James Patrick Kelly
6. After I Killed Her, Tanith Lee (tie)
6. The Language of Ghosts, Michael H. Payne (tie)
7. Zemlya, Stephen Baxter (tie)
7. Black Canoes, Tony Daniel (tie)
8. Beluthahatchie, Andy Duncan (tie)
8. Never Despair, Jack McDevitt (tie)
9. Winter Fire, Geoffrey A. Landis (tie)
9. Killed in the Ratings, Daniel Marcus (tie)
10. Ouroboros, Geoffrey A. Landis

BEST POEM

1. WHY GOLDFISH SHOULDN'T USE POWER TOOLS, LAUREL WINTER

2. Report to Moctezuma, Steven Utley
3. In the Star's Mouth, William John Watkins
4. A Reflection on the Apollo Moon Missions, Robert Frazier
5. System Crash, Peg Healy
6. Curse of Medusa's Husband, Bruce Boston
7. Our Brave Terranaut, Steven Utley
8. 17 Questions the Judges at Nuremberg Forgot to Ask, William John Watkins
9. On Distance, Sandra Lindow
10. Why the Mummy Kills, William John Watkins

Alexander Jablovkov

MARKET REPORT

Information on our buying habits is constantly collected and used by companies intent on selling us more of the same material. It may not be long before that data is used for other, more sinister, reasons as well. Alexander Jablovkov's latest novel, *Deepdrive*, is just out from Avon Eos.



slid out of the rental car's AC, and the heat of the midwestern night wrapped itself around my face like a wet iguana. Lightning bugs blinked in the unmown grass of my parents' lawn, and cicadas rasped tenaciously at the subdivision's silence. Old Oak Orchard was so new it wasn't even on my most recent DeLorme map CD-ROM, and it had taken me a while to find the place.

My father pulled the door open before I could ring the bell.

"Bert." He peered past me. "Ah. And where is—"

"Stacy's not with me." I'd practiced what to say on the drive from the airport, but still hadn't come up with anything coherent. "We . . . well, let's just say there have been problems."

"So many marriages are ended in the passive voice." His voice was carefully neutral. "Come along back, then. I'll set you up a tent."

Dad wore a pair of once-fashionable pleated linen shorts and a floppy T-shirt with the name of an Internet provider on it. His skin was all dark and leathery, the color of retirement. He looked like he'd just woken up.

"I told Mom when I was coming. . . ."

"Sure." He grabbed my suitcase and wrestled it down the hall. "She must have nailed the note to a tree, and I didn't see it."

I didn't know why I always waited a moment for him to explain things. He never did. I was just supposed to catch on. I had spent my whole life trying to catch on.

"Lulu!" he called out the back slider. "Bert's home."

I winced as he dragged my leather suitcase over the sliding door tracks into the backyard. A glowing blue North Face tent sat on the grass. A Coleman lantern pooled yellow on a picnic table stolen from a roadside rest area. The snapped security chain dangled down underneath.

"Lulu!" he yelled, then managed a grin for me. "She must be checking the garden. We get . . . you know . . . slugs. Eat the tomatoes."

The yard didn't end in a garden. Beyond the grass was a dense growth of trees. Now and then headlights from the highway beyond paled the undersides of the maple leaves, but they didn't let me see anything.

"Sure." I sat down at the picnic table. "So how are you, Dad?"

He squinted at me, as if unsure whether I was joking. "Me? Oh, I'm fine. Never better. Life out here agrees with me. Should have done it a long time ago."

Clichés were my father's front defensive line. He was fortifying quickly, building walls in front of questions I hadn't even asked yet.

"Trouble?" I said. "With Mom?" Being subtle is a nonstarter in my family.

"And how is your fast-paced urban lifestyle?" he asked

"We're working a few things out. A bit of a shakedown period, you might call it."

My parents' entire marriage had been a shakedown period. I was just an interim project that had somehow become permanent. I swear, all through my childhood, every morning they had been surprised to see me come downstairs to breakfast. Even now, my dad was looking at me as if he wasn't entirely sure who I was.

"Well, to start with, Dad, I guess the problems Stacy and I have been having stem from being in the same profession—"

"You know," Dad said, "your mother still has the darkest blue eyes I have ever seen."

"She does have lovely eyes."

"Cornflower blue, I always thought. Her eyes are cornflower blue."

Stacy's eyes were brown, but I guessed my father wasn't interested in hearing about that. "Cornflowers are not the flowers on corn." It had taken me years to figure that out.

"That's right."

"Someone once told me," I said, "that you can hear corn growing at night. It grows so fast on hot summer nights. A night like tonight."

"You need quiet to hear it," he said. "You don't like quiet, do you, Bert?" He was already looking for an argument. "You can't market quiet."

"That's where you're wrong," I said. "There's an ambient recording you can buy of corn growing. Cells dividing. Leaves rustling. Bugs, I don't know, eating the leaves. That little juicy crunch. Call it a grace note."

"And so you play it over your Home Theater system. With subwoofer, side speakers, the works? Pour yourself a single-malt, sit back, relax?"

"You don't *listen* to ambient, Dad. You let it wash over you. Through you. The whole point of modern life is never giving your full attention to any one thing. That gets boring. So you put the corn in the CD stack with the sound of windblown sand eroding the Sphinx, snow falling on the Ross Ice Shelf, the relaxing distant rattle of a horde of lemmings hitting the ocean, pop open your Powerbook to work some spreadsheets, and put a football game on the giant TV. You'll get the Oneness thing happening in no time."

"Are you getting it?" he asked softly. It wasn't like his regular voice at all.

"What?"

"The Oneness. Whatever it is you're looking for."

"There was a time when I was so close I could taste it. . . ."

"Bertram! There you are!" Had my mother just come out of the woods? She was knotting the sash of a fluffy white terrycloth robe, as if she'd just stepped from the bathroom. Her gray hair was cut close to her scalp. She looked great. She always had. Even rubbing sleep out of her eyes, her feet bare. She still painted her toenails, I noticed, and they weren't even chipped. "Franklin, weren't you going to go get him a tent?"

"I was," my dad said.

She hugged me, then tugged at the sleeve of my jacket. "Isn't it a little hot for wool?"

"It's tropic weight," I said. "Gabardine."

"The tropics have nothing on Illinois in August." With that last shot, my dad disappeared into the garage.

"Franklin's right. Here." An antique steamer trunk stood on end next to where the house's air-conditioning unit poked out of the rhododendrons.

Then my jacket was off, my tie was gone, and I was sitting at the picnic table with an iced glass of cranberry juice in my hand. Mothers do card tricks with comfort. All Dad had offered me was an argument—but then that was his way of letting me know I was home.

"Did the power go out, Mom?" I said.

She laughed. "Oh, no. How do you think I made the ice cubes? It's just the way we live now. Out here in the country."

Now that I had a chance to relax, I could see that the other backyards visible had encampments in them too: tents, tables, meat smokers, greenhouses, even a Port-O-Let or two. I could hear people talking quietly, even at this hour, and smell the smoke of banked cookfires. Something was wrong, seriously wrong, with this exclusive residential community. I should have known it as soon as my mom gave me the cranberry juice. Her comfort meant that something was not right.

There were times in my childhood when everything had been stable. For a couple of years, for example, my dad had worked in a regular pet store, selling neon tetras and spaniels to wide-eyed children who would lose interest in them as soon as they got them home. We'd lived in a suburban house with a yard, all that, and I'd been able to tell the other kids what my dad did for a living. The TV shows I watched seemed to be intended to be watched by people living the life I then lived.

But during that time my mother had barely paid attention to me. TV dinners had been the order of the day, and I remembered a lot of drive-thru eating. She thought I was safe, then, and could take care of myself.

It was times like when my dad tried to build a submerged house at the bottom of an abandoned water-filled quarry and stock the water with ornamental piranha that my mother would bake me apple cobbler and paint farm scenes with smiling cows on the riveted bulkhead in my room. She had always intervened to keep the panic in my memories on a perfectly even keel.

"I should have known," I said.

Ice cubes clinked in my empty glass and she refilled it. "Known what, Bertram?"

"That you and Dad could turn the most wholesome of carefully planned and secure communities into something disturbing. And here I thought, while driving around, that you two had finally settled down, so that I could visit you without fear. Nice neighborhood, Old Oak Orchard."

She looked off at the glowing tents of the neighbors. "It is a nice neighborhood. Do you smell roasting joints from oxen and goats hissing fat on ancient sacrificial stones? Hear the minor-key chants of the priests as they rip open the jugulars of bellowing kine with their bronze blades? Does that make you afraid?"

"Lulubelle." My father broke a branch on a forsythia as he wrestled a heavy bundle out of the garage. My mother winced. "You're frightening the boy with all this pseudo-biblical 'kine' stuff. That's cows, Bert, if you don't know. Herefords, Black Anguses. Besides, Lulu, you know our whole concept's not really about . . . that sort of thing. That's not the point."

"I thought we had agreed to disagree on the point, Franklin." I noticed that my mother had scratches up and down her arms, and that one of her little fingers was in a splint. Both Dad and I heard the danger in her tone.

He held up the tent. "It's canvas, Bert. White duck. Heavy as hell. You know, I saw some hunters out in the Gila with one of these once. They packed in on horses, and fried up a mess of potatoes in a cast-iron pan two feet across. My friend and I ate some kind of reconstituted gunk out of a plastic bowl. They were hunting elk with black-powder rifles. The things looked like cannon."

He'd told me the story before, but the actual physical tent was a new element. It was as if he now needed some real substance behind the memory. My father swore under his breath as he put the thing up. I knew better than to try and help him. It had all sorts of complicated ribs and locking joints. He pinched some skin and got real quiet. You could hear him breathing through his nostrils.

"Oh, come on, Bertram." My mother chuckled. "You won't see any animal-headed gods in the Lopezes' backyard, so quit staring. I was just . . . kidding."

She was really being hard on me. She'd noticed Stacy's absence, but wasn't going to ask about it. I was sure it pleased her, though.

"It's late, Lu." My father looked hungrily at my mother. Men should not look at their own wives that way, and particularly not at the mothers of their sons.

"Yes," she said. "It's time for bed."

It was a peacemaking gesture of some sort. They'd been at war, but my arrival had brought them together. My mother smiled at me over her shoulder as she followed him into their dome tent. It was the same old story. My parents had always disappeared behind their locked bedroom door, sometimes in the middle of the day, sometimes when I was sitting down in the living room with uncomfortable shoes on, waiting to go to some relative's house, and I wasn't even allowed to turn the TV on.

I woke up. I hadn't really slept. It was quiet. Still dark. I was thirsty. I walked across the lawn to the back door. The cut ends of the grass tickled my bare feet. It was a great feeling, a suburban feeling. The stars were weirdly bright. The Milky Way was something you wanted to wipe off with a sponge.

The sliding glass door to the kitchen wasn't locked. As a child, I'd always asked for kitchen water rather than bathroom water. My mother would go downstairs for me. The stairs creaked and I would hear her and know that she loved me. My father would go into the bathroom, make a lot of noise so I knew he hadn't gone anywhere, even flush the toilet, and then come back and tell me that it was the finest kitchen water there was. If I was thirsty enough, I would believe him.

The kitchen was dark. I felt the edge of a Corian counter top. I worked my

way toward the sink. I saw the high faucet silhouetted against the window. Wet on my fingers. Something was soaking in the full sink. The water did not feel soapy. The glasses would be in this cabinet over here.

Something hissed at me. For a second I thought it was air-conditioning after all, despite how hot it was in the kitchen. Then I saw the eyes.

"What is that thing he's got in his mouth?" my father said. He peered up above the cabinets, into the shadows cast by the lamp. "A vole? Do we have voles? Or is that a star-nosed mole? Native or . . . recreated?"

"Franklin," my mother said.

From a cookie jar shaped like a squat Chrysler Building she gave me a Tollhouse cookie. It couldn't have been baked more than a couple of hours before, probably about the time I was landing at O'Hare. The chocolate chips were still a little liquid. They unfurled themselves across my tongue. I lay on the textured floor. I didn't want to get up.

A magnet on the white dishwasher said CLEAN. The symbol for CLEAN was the smoking rubble of a city. I reached up and turned it over. DIRTY was that city whole, veiled in a haze of smog. A typical example of one of my father's deep ecology jokes. Smog is one of those antique sixties-type symbols he's always using as if they were arguments.

This time my father heard the warning in my mother's voice. He squatted down next to me. His knees cracked.

"Sorry, Bert," he said. "I guess I should have told you."

"Told me what? That you have animals in your sink?"

"It was a fisher."

I caught glimpses of the creature as it snaked its way across the tops of the cabinets, some kind of rodent limp in its mouth. It looked like a big weasel. Its eyes gleamed down at me in the lantern light. Its eyes. . . .

"A fisher?" I didn't look at it. Frogs made a low thrumming noise in the sink. An owl hooted out in the living room. Things examined us from outside the circle of light. When I was little, and wouldn't go get a drink of water myself, this was what I had known it was really like out there.

"Actually, it's an extinct species of mustelid," he said. "This one vanished about the time the ice sheets left North America. It's part of a controlled breeding experiment, the reason we've moved here to Old Oak Orchard. We regress the DNA of animals that went extinct around the Pleistocene and implant it in related ova."

"Oh, God, Dad. Remember that time you raised insulated sea turtles to give rides at that Aleutian beach resort?"

The resort had been run as some government benefit for impoverished Aleuts. All I remembered of the experience was thick clouds, rocks, and giant lumbering shells covered with barnacles, all roughly the same shade of gray. I didn't remember the turtles having any heads. My only entertainment had been working on a seaweed collection. It had all climaxed in a riot by the disillusioned locals, who had invested heavily in beachfront cabanas and glitzy casinos, and blamed my father for the fact that sea turtle rides through choppy ice water failed to draw more tourists. Most of the turtles had been stewed in their own shells on the rocky beach in a drunken feast. Sea lions had barked their approval somewhere out in the mist, which glowed orange with the burning cabanas as we pulled away in our fiberglass *bidarka*. My mother had made my very favorite chili mac while we were there, and tucked me into bed every night with a sweet lullaby in a foreign language.

It's the end of the world...
as we know it.



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It's indestructible.
And it's *infinite*.

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"We were undercapitalized, that's all." My dad was irritated at having it brought up. "The failure wasn't biological."

"No, they never are—"

"You're cranky, Bertram." My mother supported my shoulders, and I sat up. "Not enough sleep."

She had an almost suntan lotion smell, even though it was still dark. Some kind of collagen replacement cream. It was a comfort, to realize that my mother wanted to stay young. It was something to hold on to. The extinct mustelid slunk into shadows and did not come back out.

The lighter and fluffier my mom's scrambled eggs, the worse things were—a classic rule. This morning, with the innocent light streaming in through the kitchen windows, they were like clouds. I had looked around the house, but most of its nocturnal dwellers seemed to have hidden themselves in the cupboards and cabinets.

"Is Dad driving you crazy?" I asked. The orange juice was metallic, from concentrate, so maybe there was some hope.

"Since when hasn't he?" She smiled. "But this time I'm driving *him* crazy too. I came here under protest—who wants to move out to one of these bland compounds out in the middle of nowhere, even to raise extinct fauna? Really, that's no different than playing golf until you die, don't you think?"

I didn't tell her how happy I had been to see the place, to feel its stolid normality. Sodden, heavy scrambled eggs would have been a small price to pay to know that I was, at last, safe.

"But I've found things to do. I've found ways to enjoy this little place. And that, as you can guess, drives your dad bananas. I'm using it *wrong*, you see. I'm not enjoying it the proper way." She produced a day-labeled pillbox, and started filling it with red, yellow, and green pills. Sunday through Saturday. Her week was set up.

"And how are you enjoying it, Mother?"

She held up a deep-green lozenge. "Do you think my body used to produce this, and then stopped? What gland do you suppose made it?" The pill had a particularly hard gleam, like a liquid-oxygen tank on a Pixar-generated spacecraft in an SF movie.

"I don't know."

"You know how all these Pleisto-kooks got together? They all used to belong to the same Internet newsgroup. They'd trade breeding tips, give each other heads-up on available DNA sequencers and incubators. Then, a bunch of them decided to live together and work on a big project. They bought into Old Oak Orchard en masse. Some of these people were quite wealthy."

"It's the latest thing, you know," I said. "The transformation of virtual communities into real ones. One of those wonderful retrogressive steps that makes my job so much fun."

She sighed. "I know mothers can never explain their children's jobs right nowadays, and it always drives the kids crazy. But if you'd only have normal jobs, like, I don't know, accountant, or wrestler, or weatherman, or something. . ."

"Wrestler?"

"Then we could just say it, and people would know what we meant."

"I've told you what Stacy and I do. Call us experimental demographers. That's close enough."

There, I'd brought up the dread name. My mom pursed her lips, but maybe

it was because she didn't like the OJ either. "That's not really what you are, is it?"

"No, Mom." I knew she could hear the sadness in my voice. "That's not really what I am. Not anymore."

"Oh, Bertram." Her eyes filled with tears. "I don't know who pushed whom, but she's gone, isn't she?"

"As gone as it gets. And my job along with her."

"She meant so much to you. . . ." She'd never liked Stacy, but she knew what hurt her son.

"The last job we did . . ." I said. "Stacy soloed, I only advised. She was good, real good. I'd taught her how to spot potentially self-defined groups . . . she found a little community of interest among teenagers. A disaffected layer in a lot of high schools, all across the country. People think it's all mass marketing, but that's not where the real value-added stuff comes in, not any more. These kids didn't identify themselves as any sort of group, but I could—Stacy could tell from what they bought, the kind of magazines they read, the web sites they hit, and music they listened to, and the street drugs they took, that they were looking for something. Something they hadn't found yet. So she gave it to them."

"What?" My mother was interested despite herself.

"The past. The real deep past. It just took a little marketing push, and they started mail-ordering flint blanks for spear points, birth-control dispensers in the shape of Paleolithic fertility figurines, ink-jet-sprayed wall paintings to conjure up mammoths. It was just this group, but they were really into it. Their rooms at home must have looked like Altamira or Lascaux. When the trend tanks you won't be able to *give* that Acheulean stuff away, but that's off in . . . the future."

My mother stood up and ran gnarled fingers through her short gray hair. She didn't look young. I wouldn't pretend that. She was old, she was my mother. But she had more light in her eyes than she'd had in years. She also had scratches on her hands, and calluses on her palms, like she'd been working hard somewhere outdoors for quite some time. My mother had never been a gardener and, in fact, there was no trace of any garden in the yard. I'd looked for it.

"You think you're so smart, don't you?" Her tone was bitter.

"Mom, I—"

"Talk to your dad. I mean, really talk to him. I think you still need a few lessons in what life is really like."

She walked out of the kitchen. A few minutes later I heard the door to the yard ease open. I craned my head out the kitchen window, but couldn't see where she went. I sat down to another cup of coffee. Something that looked a lot like a badger poked its head out from under the sink, saw me, and pulled back. The little door clicked back onto its magnet.

"Dad," I said. "I think you got some problems." Mom had gotten me thinking about the possible consequences of his new project. I felt like I was back on the job. It bugged me how much I liked that feeling.

"You're telling me?" He spent some time putting the ball on his tee. "I thought your mother and I could work together on this. Instead, she made a bunch of new girlfriends and now spends her time hunting ungulates in the woods with spears. Is that anything a woman her age should be doing?" He swung at the ball with his driver. It sliced viciously, off into the dark woods

that bordered the course. In all our years together, this was the first time he'd ever taken me golfing. I already didn't like it.

"I . . . well, actually, you know, Dad, it's really about time. It's good for her to do something like that."

"God, I knew you'd take her side."

"I'm not taking her side!"

"Deer liver. I'm talking deer liver for supper, with forest mushrooms, fiddleheads, all sorts of sick hunter-gatherer crap. She just doesn't seem to get the *post-technological* nature of our enterprise. She's a woman who skulks with the foxes." He left the course and started hacking his way through the underbrush. I followed.

"Dad," I said. "Are we chasing after her? Bugging her?"

"Eh?" I'd caught him. He scratched the back of his head. "Not at all. A golf course is a good place to work out a few intellectual problems. That's all. Golf is the perfect combination of mathematics and frustration."

"Let her be, Dad. She has a right to do what she wants." Even if it was some up-market version of an old mid-teen trendlet. No wonder she'd gotten irritated with me. "You're doing what you want, aren't you?"

"I don't know. I don't know. I had a different idea when I came here . . . it doesn't work without Louise." He never called my mother Louise. Lulu, Lulubelle, Looly, all sorts of things. She never liked her given name. "You know, she spends all night out sometimes. Getting nocturnal on me. Pretty soon, her eyes will grow a tapetum and reflect in the headlights. And I'll never see her again."

"Dad, that's just not true, and you know it."

"I want you to help me talk to your mother." His voice was quiet now, matching the hush of the dense forest in which I was already completely lost. "That's all."

"Not here, Dad," I pleaded. "Don't try to talk to her here."

"I have to. I can't stand it anymore. Back me up, will you, son?"

They created me as a ref. Both of them. I might as well have been born with a black-and-white striped shirt on and a whistle in my mouth. I was the go-between in all their arguments.

"Dammit." He tripped over a thick tree root. "Where do you suppose that thing's gone? It was a good one, Titleist."

He was maintaining the imposture, even though we'd now been wandering in this thick jungle for a quarter of an hour. He'd occasionally brush some wild sarsaparilla or poison ivy aside with his iron, but he never actually looked at the ground underneath for his ball.

"Dad," I said. "Do you remember when you used to take me camping?"

"Eh?" That caught him by surprise. "Sure, of course I do."

"Why did you stop?"

"Stop?"

"Stop taking me!"

"You didn't like it."

"How did you know that?"

"Know what?"

That took a deep breath. "That I didn't like it."

"You just didn't, that's all. It was hard, you got blisters, we got rained on, the food was always kind of grainy or lumpy. Don't you remember? Those trails, mud where they weren't trippy rocks, bugs, and nothing, nothing to do except walk and look at stuff."

I didn't remember hating it. Oh, sure, I bet there were times when I had been a real pain in the butt, not wanting to poop in a trench, or unwilling to get out of a warm sleeping bag to greet the icy dawn, or whining over my blisters. But I remembered happiness when I would wake up in the middle of the night, moonlight streaming through the mosquito netting, trees rustling in the breeze, my father's heavy bulk snoring next to me. The mountains at sunrise had looked something like heaven.

"You shouldn't have stopped taking me, Dad," I said. "You love it." He still went every year, with his increasingly creaky friends he'd been going with since high school. "It's something to share."

"You can say that, but you didn't have to put up with you. All the questions, all the suggestions. Sometimes it was technical—ways of packing more efficiently, that sort of thing. But sometimes it was, I don't know, spiritual or something. How we could enjoy ourselves better. How we could be more ourselves. I tell you, Bert, that's a little hard to take when all you want to do is go on a hike."

He and his friends Bill and Frank had been the sort of limited demographic I later made my career out of satisfying. They weren't high-intensity rock-face-sleeping types. I did vaguely remember trying to figure out why they liked what they did, and how they could like it better. My dad's gear had even been pretty lame. For example, the waterproofing had come off the bottom of his tent and it always got a little wet.

I was starting to remember now. A fight. Not even on the trail, but before. I'd hauled his tent out of the garage, where he'd packed it up wet, cleaned all the dirt and grass off of it, and re-waterproofed the bottom. It had taken me all afternoon, patiently coating every square inch with the goo. While I was at it, I sealed all the seams. My father never really understood that they sold you the tent with the seams unsealed, so rain had always run down the stitching. When I was done you could have used that tent as a boat. I stood back, hands on my hips, and admired it as it stood in the backyard.

"What are you doing?" my father had said behind me, and I turned to explain.

I didn't remember the anger itself. All I remembered was his car driving away, his friends Bill and Frank sitting in it instead of me, both of them incredibly embarrassed. I had solved a problem for him, and that was something he just couldn't stand. All of my mother's entreaties had been useless. I had to stay behind. I was too young, he said. Too much trouble to take along. Maybe when I was older. . . . That had been the last time.

"Maybe we can just go for a hike sometime," I said.

"Let's count this as a start."

For a moment we moved in synch through the trees, as if we were together, heading for the same place.

"Let me take advantage of your expertise for a moment, Bert," he said. My dad had always known exactly what I did, though he had never approved of it. "Could you find us? I mean, if you were back in your office. Without knowing anything about us, would we pop up when you searched for unusual patterns in purchases?"

"Sure." I'd already been thinking about it. "This operation can't just boot-strap up from nothing. You had to have bought all sorts of things, gotten all sorts of technical information. All of that can be traced."

"But that's not so bad, is it? All you'd want to do is sell us more things. My dinner of antelope and tree bark will be interrupted by a call from someone

trying to offer me a zone electrophoresis setup or a subscription to an Embryo of the Month club. Free samples of restriction enzymes and mammoth kibble in the mail. Right?"

He wanted me to reassure him. This was my territory.

I couldn't do it.

"You know, Dad, when I met Stacy, she was just a research assistant. Not mine, understand, just in the department. But she was eager to learn. She had a Ph.D. in sociology, but thought her whole life would be studying something like the distribution of ethnic first names in middle-class households. I showed her the ropes."

"She seemed . . . I don't know, Bert. She never seemed like your type. Dumb word, I know. Not clear at all. But what upset your mother was that, when you visited, you never seemed . . . yourself. Now, that's natural when you're starting out, I guess. . . ."

"I worked it, Dad. I mean, I really worked it. You have no idea how far I went. I wanted her . . . at first it was just sort of ambition. She was beautiful, right? But that wasn't all. She was so sharp, so crisp. So *focused*. For a while she focused on me. I melted. I resisted, that wasn't my plan, but it happened before I knew it. I don't know . . . I don't know if *she* ever did. There comes that moment, you know? Where the other person . . . melts. I always deluded myself into thinking it had happened. My game just wasn't good enough."

"Your mother, for example, was very resistant." Dad was reminiscent. "Somehow, my line of nonsense didn't particularly charm her. Imagine that! But one day, we went out canoeing. There were a lot of toppled cottonwoods in the river, and several times we had to pull the canoe over them. It was hot, and there were a lot of bugs. It should have made us cranky with each other, but instead, each drag across made us more of a team. I fell in the mud, more than once. Your mother wore white shorts and a light blue blouse with a collar. I remember her staying completely clean, she remembers herself getting covered with drying mud. That was all fine, it was a step forward. Mosquito bites and all, it was something we'd shared. Then, just as we were getting ready to turn around and go home, a water moccasin swam slowly out to us. Now, I knew a thing or two about poisonous snakes at the time—I had a Pentecostalist friend who made a great living at county fairs—and I was able to . . . hypnotize it, I guess you'd say. It fell asleep on my paddle, eyes still open, and your mother stroked its head. She wasn't afraid. She trusted me. Then she looked at me and . . . I knew it had happened. Nothing would ever be the same again. After that—"

"Dad—" He was pushing it.

"Oh, no details, no details. Not about the rest of that day, anyway. But after that, we got married and I started a viper ranch. I saw it as fate. Your mother helped raise the money to start it. After a year or two, it failed, and we had to let the snakes go. It still gives me a tear to remember the black mamba slithering across the parking lot toward the drainage ditch by the highway. . . . But, you know, your mom never faltered. She always stood by me. And she was already pregnant with you, by then. Given the amount of venom she encountered during her pregnancy, I'll bet you're immune to a wide range of toxins."

"I've never really had the chance to check that out. But Stacy . . . I suppose it was a cliché man/woman relationship, mentor and pupil. But she was so sharp! It was like no one had ever listened to me before—"

"You know, son, I've been meaning to work on that, really I have. . . ."

"That doesn't matter! For the first time, someone focused her full attention on me. It's an incredible rush. I never knew. . . . We fell in love. You know the rest. We became a team. I molded her, taught her everything."

My father cleared his throat. "For what it's worth, Bert, I think she really did . . . love you. That one time you visited . . . maybe she didn't melt. But you got her as close to it as anyone possibly could." He shook his head. "Your mother would kill me if she heard me telling you that."

I blinked my eyes and looked around. "Boy, this place really is a jungle."

"Yeah. They've gone too far, is all I can say. We get together, try to recreate a few species, just a gentle hobby, like miniature trains or building ships in bottles . . . and these guys go completely berserk. That's life in the exurbs for you. All sense of social control is lost. Your mom has to be somewhere around here. . . ."

My dad pulled a machete out of his golf bag and hacked at the trailing vines and lianas. Leaves flew around him, but he didn't make much headway. He'd had muscle once. I remembered him mowing the lawn with his shirt off. He'd insisted on a push mower. It was an old one he'd bought at a yard sale. Being my father, he'd never lubricated it right, and the blades were so dull they sort of folded the grass instead of cutting it. But I remembered his delts and back muscles gleaming with sweat as he struggled and swore and dug gouges in the lawn. In later years, Mom would have me borrow an incredibly noisy and smelly power mower from the Hendersons next door and cut the grass while he was away for the day. If my father ever noticed anything, he didn't think it worth mentioning, and eventually he stopped using the push mower. He left it outside by the side of the house and it rusted into a solid lump of metal.

But now his skin sagged down over slack muscle. I could tell his joints hurt by the clumsy way he swung the blade. Tomorrow he'd be awake before the first light of day with a rotator cuff on fire, slathering on the Ben-Gay. And he hadn't sharpened the damn blade. Some things never change.

"Dad."

"What?"

"Could I do that?"

He looked at me over his shoulder. "You ever handle a machete?"

"Just let me try it. Come on."

"It's not a toy, Bert. It's a very specialized tool, regardless of what you might have seen in some damn blowgun epic—ouch, dammit!"

The blade rebounded from a particularly resistant vine and the blunt trailing edge bounced off his forehead. I caught him under the arms as he fell backward. The machete embedded itself dramatically into a rotting tree stump and stood there, cracked Bakelite handle up.

He looked up at me. He'd have a bruise, but he hadn't broken the skin.

"Bert," he said. "What finally happened?"

"With Stacy?"

"With whatever."

I helped him to his feet. He'd lost a lot of muscle but he didn't feel any lighter. Without any objection from him, I pulled the machete out of its tree stump and started hacking at the vines. It was harder than it looked. A lot harder. Blowgun epics . . . I couldn't remember ever seeing any of those, no late-night TV viewings of *Yamomano!* or *Death on the Amazon*, but I suppose there could be such things, made on virtual soundstages in Malaysia.

"She was smarter even than I thought. Or maybe I was a better teacher

than I ever imagined. You see, I'd marketed myself. I'd created an interest group for her, found what she'd secretly wanted, and gave it to her. Mom was right. I wasn't myself. I was an ad for myself. A good one, much better than the actual product. So she finally figured out. By then she was good, better than I was at what I do. We had our last fight when I said I could *become* my ad, really be what I had for so long pretended. She'd never know the truth, I told her. She would be living with the man she'd always thought I was. I was pathetic."

It was hard, remembering her contempt. I'd taught her to see clearly and here I was trying to get her to put blinders on again. I think it was that anger that drove her to what she did next. In the aftermath, I was forced to submit my resignation.

"She left the company when she left me and moved on to the *Interrogator On-Line* TV show. She uses what she learned for tabloid TV segments. She spots and exposes incipient cults, weird social groups, fads, that sort of thing. It's the coming thing. There are more bizarre groups all the time. And the first group she outed was us, my company. A bunch of paranoid megalomaniacs who think that they control the private interests and identities of millions of Americans.

"Us," he said. "Isn't that right? You're saying she's after us."

My old man wasn't so stupid after all. That was exactly what I was saying, I realized. I just hadn't known it myself. My dear Stacy could be floating above us right now in one of the media's black helicopters, scanning us, getting ready to drop a camera team down and expose this place on national TV. That fisher wouldn't make much of an image, but there had to be something more interesting around here. . . .

"Dad—"

"Look out!" He knocked me over.

I went down. The tawny shape of the springing animal blurred over us. It hit, turned quickly . . . but did not leap to finish us off. Instead, it sat back on its haunches.

It was a big cat, like a lion or a tiger. Except—I had to look again. I didn't know a lot of biology, but I did know that there wasn't anything in a zoo that looked like a tiger but had tusks like a walrus. It made a low rumble I could feel in my chest, and lashed its tail. In knocking me over, my father had twisted my ankle. All I could feel down there was that pressure that was the shadow of future pain.

"They're pretty near-sighted," my father said. "I don't think we should move."

"What the hell is that thing?"

"Eh? Oh. It's a smilodon. Call it a saber-toothed tiger, though that's not very accurate."

"Whatever it is, it's opening its mouth at us. I don't think I can move."

"If it's anything like a tiger, that's called flehmen. It's using its vomeronasal organ—trying to smell us. Which way is the wind blowing?"

I looked up at the leaves to see if I could tell, and found myself mesmerized by the sky. The trees stretched what seemed hundreds of feet up, and their gigantic crowns spread out against the placid blue. Birds flew back and forth up there. I could smell the thick loam under my head, and a single shaft of sunlight pierced through the upper stories and lay on the side of my face, as warm as a mother's kiss. Lacy-winged insects flickered through and were gone.

"Are you all right?" My father was so close I could feel his breath as he spoke.

"I don't know. My ankle . . ."

My father prodded at it, which actually did make it hurt.

"I have something to tell you," he said.

"What's that?"

"I have no idea whether it's broken or not. I don't know what to look for."

The saber-toothed tiger, as if puzzled by our incompetence, lay down completely and yawned again.

"I'm sorry, boy."

"That's okay, Dad."

"No it's not. I shouldn't have brought you here. It's between your mother and me."

"It's between all of us," I said.

"Will she . . . will Stacy find us, do you think?"

"If you've been buying the gear and subscribing to the magazines I think you have, yeah. I doubt the next development over buys as much as a single cloning setup a year, even as a gift."

"You got that right," he said. "The Menhir Manors people are mostly shamanistic fire worshippers. I think your mother has some bridge-playing friends over there. Buy briquettes by the truckload, but no restriction enzymes."

"Oh, God." I rubbed my forehead. "Another Internet newsgroup that decided to settle down in the exurbs?"

"Actually, I think most of them got a number to call off photocopied announcements on the walls of tattoo parlors. Traditionalists, the lot of them. But even they have to put gas-stack scrubbers on those big brazen idols of theirs, or they'll catch an EPA raid. But what can we do, Bert?"

Did the weight of his need make me feel lighter, or heavier? I wasn't sure.

"Franklin." My mother's voice, from somewhere off in the underbrush. "What are you doing here?"

"Lulu!" He shouted, even though she wasn't more than a few feet away.

"It's important."

"Go away. I'll see you at dinner."

"Please! And Bert's twisted his ankle. That damn giant kitty. . . ."

"Don't fuss about the smilodon. She doesn't hurt anyone. Besides, she hunts large game. Those teeth aren't any use against something as puny as a human being."

A rustle in the leaves, and five women appeared, my mother among them. There was nothing remarkable about them, really. They ranged in age from their mid twenties to at least their sixties, and my mother wasn't even the oldest. Several carried composite bows with pulleys on them. One had a dead rabbit hanging from her belt. They could have been students at some Adult Extension class.

A woman in her early thirties, with wild black hair, knelt down next to me. After silently examining my ankle, she pulled an instant-cold pack out of her bag and cracked the inside partition. Then she attached it to my ankle with an Ace bandage.

"RICE," she said. "Rest, ice, compression, elevation. Can you handle it?"

"Sure. Particularly the rest part."

I could smell the stink of her crudely cured buckskins, but somehow that did not make her seem less attractive. Her face looked like she'd spent a lot of time squinting into the sun.

"Stacy!" My mother shrieked at what my dad told her. "I knew it." She knelt by me. "Oh, baby. I'm sorry. I know she meant a lot to you. You loved her."

"Don't embarrass him, Looly."

"I'm not . . . am I embarrassing you, Bert?"

"Yes, Mom, you are."

She sat back. "Well! Try to show a little maternal warmth—"

"He knows that, Lu. You know he does. But he has other things on his mind."

"What? He's a refugee, Franklin. When your marriage ends . . . you've lost your country. Your native language. Everything. And he's come here to us. . . ."

Was that what had happened? I wasn't sure any more. Sometimes what seems like free will is only the following of the deepest patterns, the ones you can no way resist. Stacy didn't need me, and in the aftermath of her departure, it seemed that no one did. Except here.

"Ladies!" I said. "Do you mind if I explain a few things to you?"

"Of course not." The black-haired woman patted my hand. "We know what helps a man relax."

"Don't patronize me. This is serious. I'll give you the information, and you can decide what you want to do with it. Now, imagine if Old Oak Orchard was on the cover of *Time*, the subject of three tabloid news shows, and had tiger-striped tour busses coming through to look at the fauna. What would that mean to your lives?"

That got their attention, big time. They sat around me in a circle and watched me closely.

"You've concealed yourselves pretty well. From outside, you look just like any other exurban residential community centered on a golf course. Kudos for that. But, and this is even more important, all of your purchases can be tracked." I told them how they could be found, how, in fact, I would have found them a few months before, if that had been my job.

I felt a sudden surge of power as I spoke. I had no idea why changing from predator to prey felt so liberating, but it did.

"But there's one thing they aren't used to, those searchers after fads. They aren't prepared for a deliberate deception. They aren't ready for someone to be on to their game. Fake purchases, odd magazine subscriptions, anomalous hits on Internet sites. If we massage the statistics just right, we can send them baying off after entire demographic shoals of red herrings."

And a brilliantly specific deception came to me in a flash. A play with excavation equipment rental, freeze-dried food supply purchases, air recirculation systems, self-tanning gels . . . the works. It would show an incipient self-defining group. Call it Bomb Shelter Chic. Late-middle-age security-minded exurbanites moving into underground palaces. Stacy and her compadres would eat that up. The kitschy paranoia of the past made for the cool trends of the future. A few Morlock Madness Midnights at the local mall, and we'd have everyone from Malaysian marketeers to *Hardcopy* video journalists looking desperately for something that did not exist.

And that was only the beginning. Canned calves brains packed in caul fat on the Upper West Side of Manhattan, hyena-print sarongs in northern Minnesota, and sophisticated digital recording equipment in Shreveport would send the entire system wobbling on its axis. Old Oak Orchard would vanish into an Antarctica of white noise. We could survive.

The smilodon watched me carefully as I spoke. Did it know I was protect-

ing it from exposure? Perhaps it would not have approved. Maybe it wanted to be in commercials. The woman with the buckskins and the bow—maybe she wanted to get the endorsements, like a beach volleyball star. But, no. The essence of the new marketing paradigm was that not everyone wants the same thing, no matter how much easier that made production.

Those women gave me a standing ovation. It felt good. I was here. I was at work. Then they picked up their bows and faded back into the woods.

I looked around for my father. He had passed the ball to me, and I wondered how he felt about it. At some level, of course, he had hoped, all the way along, that I would solve his problems for him. Still, it couldn't have been easy. I did remember that he had taken that damn waterproofed tent on that camping trip with his friends. I was sure he'd stayed dry.

He talked quietly with my mother. I wondered if either of them had paid any attention at all to my world-beater speech.

"Hey," I said. "Could I get a little help here?"

With their support, I managed to limp along, one arm on each of their shoulders.

"That woman," I said. "The one who fixed my ankle. . . ."

"Jennifer?" my mother said.

"Her name is Jennifer?"

"Look, Bertram, having a popular first name is not the kiss of death. But you wouldn't be interested in her."

"Why not?"

"Well, she's really a bit of a tomboy."

"Mom, you run around the woods hunting deer with bow and arrow."

"Really, Bertram, as if that's relevant. Jennifer is not your type."

"Do we have any lasagna at home?" my father asked.

"Some of the spinach," my mother said.

"Spinach? None of the sausage?"

"We finished that on Tuesday. Is the spinach a problem?"

"No, of course not."

"I can make some sausage up fresh."

"Oh, no . . . no, don't take the trouble."

"It's no trouble." She shook her head. "Jennifer. Imagine."

"Give the boy a break."

"Please, Dad." I hated the way they talked about me right in front of me.

"That's not important."

"That was quite a speech. Thanks for saving our saggy polyester-clad butts, son."

He made me laugh, even though my mom didn't seem to think it was funny.

"You're welcome, Dad."

Why was my mom working so hard at trying to make Jennifer seem interestingly forbidden? Was she really learning more about how her son's mind worked, even at this late date? That was a scary thought. I was more part of my family than I had thought.

"Your mother's lasagna will set you back on your feet in no time," my father said. "Even if it is spinach."

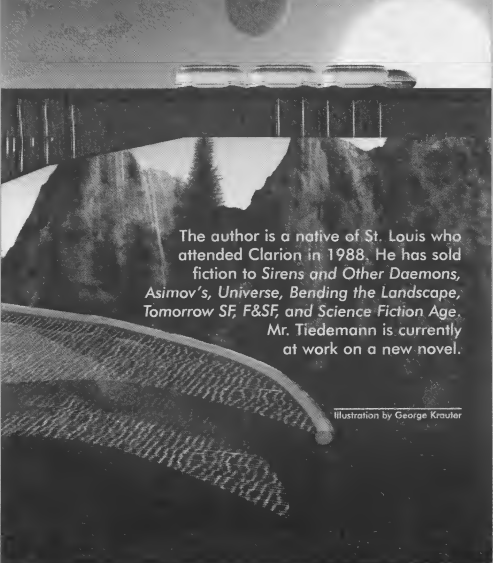
"I told you, I can *make* sausage. . . ."

Impossible creatures lurked in the underbrush, but I knew I was home. ○



Mark W. Tiedemann

WITH ARMS TO HOLD THE WIND



The author is a native of St. Louis who attended Clarion in 1988. He has sold fiction to *Sirens and Other Daemons*, *Asimov's*, *Universe*, *Bending the Landscape*, *Tomorrow SF*, *F&SF*, and *Science Fiction Age*. Mr. Tiedemann is currently at work on a new novel.

Illustration by George Krauter

Illa Preneur stepped out of the open-topped transport, dust eddying around her in Tabit's light gravity. The train ride from Downer's Landing eight hundred kilometers to the south had been just long enough to give her a false sense of acclimation to the two-thirds g. The thirty kilometer drive over compressed matter roads from Leaglenn Station had restored her caution.

I won't be here long enough to get really used to it, she thought, looking up at the farmhouse. Three people waited on the immense porch that wrapped around the entire open-walled first floor. The second and third floors squinted at the world through narrow windows, and the roof grew over it like a displaced hill, the shingles bright like hot coals in the noon sun. The other buildings looked plain and utilitarian, prefab modules probably dating from the earliest days of the colony. The main house reserved all the character of the stead to itself.

"It looks Cetian," she mused.

"Is." Skaner Vahi came around the front of the transport. His friend, Jos Kurlen, pulled Illa's bags from the storage. Skaner was taller than Jos—who lived with the Vahis and worked on the stead—but Jos was thick across the chest and appeared the stronger of the two.

"I knew the first colonists here were from Tau Ceti—"

"Vahis are first wave from Homestead," Skaner said, a hint of pride in his voice.

Which made Skaner and his brother Rafir fifth generation.

"I'll take these up?" Jos asked, holding Illa's two big packs.

"Guest room," Skaner said. Jos nodded, smiled quickly at Illa, and bounded up the steps and into the house. "Let's meet." Skaner gestured for her to precede him.

In the shade of the porch, Skaner said, "Pater, mater, this is Co Illa Preneur, from Sol. Co Preneur, this is Co Corum Vahi and Co Rilana Vahi-Strethem and Co Vida Strethem, my aunt." He tucked his hands into his hip pockets, then stepped back, duty done.

Illa hooked her right-hand thumb in the V of her shirt and tucked her other hand out of sight under her ankle-length coat, an aesthete's greeting, as familiar as a smile or a handshake in the circles she normally moved. Here it jarred. They would see was an intruder from the Inner Pan who probably saw them as unsophisticated and dull, found their speech amusingly rustic, and their values unnecessarily austere. Illa counted on that cultural wall to buffer all of them. They had enough pain to bear already; she wanted neither to add to it nor share in it.

Skaner's father was a wiry man, his bald head seeming too large for his body. Skaner had the same deep-set pale eyes, but where in him they gave an impression of thoughtful intelligence, in Corum Vahi they looked only mistrustful. Corum had a fine tracery of cracks in his dark skin, earned in a lifetime spent under Tabit's glare.

Rilana and Vida differed strikingly for two people who looked so much alike. Dark hair, dark eyes, olive skin, and features more suggestive than revealing. Taller than Corum and broadshouldered, Rilana showed the same tight sinews as Corum, grown from the daily labor a stead demanded. Vida exhibited the physique of an athlete, muscles smooth and rounded. Skaner's mother exuded a kind of negligent competence while the aunt was clearly aware and proud of herself.

Then Illa spotted the ring on Vida's right hand middle finger. A black band with a single sapphire. Armada. When she looked up at Vida, the woman

smiled slightly, reminding Illa of her own mother. For a few moments she felt vulnerable, exposed; everything she was doing could easily be undone by a simple inquiry to the right office, all her careful subterfuge destroyed by a close look.

"Thank you for welcoming me," Illa said. "I don't wish to seem rude, but if I may I'd like to see your son before anything else."

"I can take her," Vida said, already starting to turn toward the interior.

"No," Rilana snapped. "Skaner, show her." She frowned for a few moments. "After, there's tea. We—"

"That would be wonderful," Illa said. "I won't be long."

Rilana nodded and a heartbeat later so did Corum.

She followed Skaner through the screen, the field tugging at her lightly. Inside, the warmer air smelled of spice and bread. Low couches and pillows formed a kind of maze to the central stairs. Through the back she saw cultivated fields shifting gently.

Skaner took her up to the third floor, to the last door at one end of a long hallway. Illa entered a room brighter than she had expected—tiny refractors lined the window frame that directed any light that fell on them inside to bounce off the white walls and ceiling—a warm light with an amber quality. There was a wall-length bureau and a few chairs around the large bed.

The young man there lay embraced by a shape-shifting cocoon that regulated all his biofunctions. From time to time his limbs trembled from the impulses that worked his muscles. No scars, no braces, no bruises, no deformities or disfigurements, the only sign of his injury a slight discoloration of the interface caps on his fingertips. In fact, Illa noted, he was an attractive man. His features favored Rilana rather than Corum. Dark eyes and hair, thin lips. Tall. Before his damage—

Illa stopped the thought. She had seen ten others like Rafir Vahi. Fine body, beautiful almost, and a blank face. His dark eyes stared, half-slitted, occasionally blinking, at nothing. They did not track her when she crossed in front of him. She touched his cheek lightly.

"Hello, Rafir," she said. "I'm here. I'm going to end your nightmare."

She stepped away from the bed. Skaner leaned against the doorframe, watching. For the moment it was easy to see his father, latent in the doubt in his eyes. Illa studied the biomonitors attached to the bedstead, but she already knew what they showed—Rafir Vahi suffered link coma, caused by a shock to the interface branches that trailed throughout his nervous system and brain, creating a closed loop that fed back on itself, effectively nullifying all sensory stimulation. His brain pattern showed as a long, sinuous sine wave, no spikes, no variation. He was trapped inside himself.

Hanging on the wall above the bureau stretched an enormous set of wings with a harness attached. Brown and tattered, they appeared to be made of a pair of big leaves. Holes opened in the complex web of veins, and reinforcing rods showed through along the top edge and in the center. The surface glistened faintly, like plastic coating.

Directly below, on the bureau, was a plaque that said "Rafir Vahi, Piric Canyon" and a datachit.

"Trestling," Skaner said. "Rafir holds the record for Piric." He straightened. "Tea, Co Preneur."

"So," Corum said, watching Skaner fill six tall glasses. Ice crackled. "You make sitchers, Co Preneur?"

"In situ sensorems," Illa corrected. Skaner set a glass before her, then Corum, Rilana, and Vida. He placed another by his own chair and the last one on the far end of the low table.

"We didn't expect you so soon," Vida said.

Skaner sat down and Rilana raised her glass.

"Welcome to Vahi Stead," she said. They all drank. The greenish tea was bitter, the aroma sharp. Rilana pointed to the sixth glass. "Eldest shares tea, always. After Rafir came back hurt, Skaner became eldest, but we set one for Rafir all the same."

Corum nodded and took another swallow. "So, how do sitchers help Rafir?"

Illa hesitated. She hated explaining, especially when it was half a lie; no one so far had understood. It doesn't matter, her mother told her, the illusion is everything. The illusion of understanding.

"Rafir's injury," she said, "do you know what it is?"

"His ship's sensory net backloaded," Vida said. "He was hit. Instead of shutting down, a surge ran through the whole system and into him. The interface webbing has become his only source of stimulus. Nothing outside of it can get through and he can't get past it." She cocked her head at Illa. "Correct?"

"I couldn't have described it better myself. Technically, anyway." Illa leaned forward, ignoring Vida's frown. "You have to understand first that no one really knows why the link works."

"The technology is over two centuries old," Vida said.

"Some of it. True, we've had supplemental links since the early twenty-first century, augments to compensate for certain inadequacies or to amplify intellectual resources, but you must understand that those amounted to little more than data transfer devices. The full sensory link is different. We know *how* it works. We don't know *why*." She waited for Vida to challenge her. When she did not, Illa continued. "So when something like this happens—Rafir's damage—we don't know what exactly is happening."

Corum nervously turned his glass by the rim, round and round in place. He licked his lips. "So . . . how do sitchers come into this?"

"What I do—my art—is to make full sensory experiences. Fictions. But I draw them from the extant. Real life." Illa felt herself stumbling. This was the part, the thing that never seemed to make sense when she described it. "I construct a tableau. . . ."

"Why you?" Vida asked. "Why not an Armada tech?"

"The programs are Preneur constructs. No one is better qualified to do this."

"Sitchers . . ." Rilana said, frowning.

"Yes, Rilana," Vida said, "that thing Corum got a few seasons ago and couldn't stop using?"

Rilana scowled. Illa looked at Corum and his expression became immediately familiar. She hated the word addict, it came burdened with so much history and judgment, but in some cases it described perfectly. Corum was a sensorem addict.

All the way out here? she wondered, and recognized the history and judgment permeating *that* question.

Vida wore the expression of one who has successfully counted coup, while Corum looked ashamed under Rilana's resentful stare. Skaner kept his face carefully neutral; Illa admired his skill.

"There was one pilot I worked with who exhibited a pronounced dissociative

syndrome," Illa said quickly. "She had divided into two distinct people, one a warrior who remembered clearly every action she'd been in. But it was the other one who dominated most of the time and she was completely guilt-ridden. Unable to function outside the hospice ward, incapable of independent decision-making, a total psychological invalid. The trouble was, she didn't know why. She only knew she was an evil person. She did a lot of damage to herself—mutilation, forced starvation, things like that. I made a template of both of them and set it up as a dialogue. No matter which one exhibited at any given time, the other would kick in and complete her. Not a perfect fusion, but she was able eventually to leave hospice care and function."

"Why didn't they adjust her?" Skaner asked. "I mean, that's not a new problem."

"But it is new. Like your brother, it's a malfunction of the interface. Instead of being primarily psychological, it's physiological. Her separate personas existed as distinct entities separated by the neural implant network. In Rafir's case it seems he's living entirely within his net."

"You can reach him there?" Rilana asked.

Illa nodded. "I've done ten of these now. The profile I sent you detailed the success rate."

"What's yours?"

"I'm sorry, I don't—"

"She wants to know," Vida said, "what you get out of it?"

Illa hated lying to people, but after the first couple of times it had grown easier. Then she had found a better way, a simple truth that explained nothing. Better than lying, it still left her feeling oddly tenuous.

"That's personal."

Illa opened the pack and spread out her equipment. Small boxes, modules attached by cables, displays, an arsenal of specially built devices. She ran diagnostics on all of them, especially the recorders, trying to pretend Skaner was not watching her. The Vahis did not trust her, especially Rilana, and she could hardly blame them. Offworlder, arriving with the blessings of the Armada, with a claim to ease the suffering they imagined Rafir experienced, and then refusing to tell them why she even wanted to try. What would they think if they learned that she was the wrong Preneur, that it should be her mother here doing this instead of Illa?

Late afternoon light flooded the narrow window. Illa examined the biomonitors, more for Skaner's benefit than her own. She knew these systems now. The Armada provided only the best for its fallen, state-of-the-art, self-correcting, largely self-maintaining. She plugged a decoder into an external feed, then linked a recorder into that and at the junction where signals crossed between Rafir and his machine. Ready lights winked on and she patched the new arrangement into a datasump.

"This will take some time," she said. She gazed up at the wings on the wall. "You said this is for trestling. Tell me about it?" She leaned over the bureau. "It looks organic. A leaf?"

"Vinerleaf." He seemed about to say more, but uncomfortably looked away.

"Is it a secret?"

"No. Just . . ." He nodded toward her equipment. "What's that doing?"

Illa walked over to Rafir. "Do you understand how—do you know what's wrong with him? I know I explained before, but did you really understand what I said?"

"No. Vida tried once. Said it's like having a nova go off inside your skull all the time."

"Partly. But it's more complicated."

"Always is."

He did not seem so young now. She wondered what it meant for him to suddenly become eldest son. In other places, it would only have signaled a change in social status, little more than a title. But here, Illa sensed, it came mixed with responsibilities and regrets, new burdens and unexpected guilts.

"The link," she said, "is basically a mesh of conductive fiber that blends with the nervous system, most of it in the brain. At key intervals small processors, like secondary neurons, act as interpreters between the brain and the external systems being interfaced. Sorry that's so technical, I—"

"I follow."

"There are safeguards. Cutouts that shut down the link to prevent overload. Once in a while, though, this happens." She drew a deep breath and kept her gaze on Rafir. "A massive surge of input. Probably the external fail-safes went first. The surge pours through and the net doesn't shut down, it takes the full force of the surge. Burns out. Normally, it fails and switches off. In some cases that can even be repaired, but generally it means that, while the victim is organically functional, undamaged, linking is no longer possible. Ever. In even fewer cases the system fails switched on. It stays on then. All the time. It generates its own stimulus. Overwhelmed, the mind shuts down."

"Coma."

She gestured at her devices. "What I do is make a recording of the stimulus and try to interpret it, find out what's going on inside. If I can do that I can get through."

"You mean bring him back? Like that pilot with the two selves?"

"No. That was unusual. Most of them, nothing brings them back."

"Then—?"

"I can create a new sensorem for them. For whatever is left of their life, I can at least help it be pleasant. Sometimes, if I'm lucky, it can be genuinely good for them."

Skaneer's discomfort showed clearly in his eyes.

"So," she said, approaching the wings again, "are you going to tell me about these? Or is it a local secret after all?"

"No secret. Just a game. I'll go see about dinner."

Before she could protest, he left.

Annoyed, Illa checked her instruments once more. Another ten hours, twelve at most, for the decoding. "What do you have for me, Rafir Vahi? What did you see?"

He was the last one scheduled. Three other families had refused outright and four more had not responded. She gave her recorder a pat, as if it were a living thing. In a way it was. Several living things.

Illa waited on the porch, a cup of hot tea in her hand, for Jos to come in from his morning chores. She gazed out at the sloping fields of newheat that glowed beneath Tabit's too-yellow glare. An aegis tree stood on the horizon, its medusan limbs coiled skyward; the roots, Illa knew, spread for acres, holding the soil and secreting microfauna to defend against native parasites and rework the local minerals into compatible nutrients.

From the train Illa had seen a sizable portion of Leaglenn Massif. A huge

upthrust, broken into hundreds of individual sections separated by a network of canyons spanned by delicate-looking bridges. The cold top had been largely barren when the colony began, mostly local grasses and a few scrub trees. But the canyons were choked with dense foliage, warmed by a labyrinth of hot springs.

Jos grinned as he came running up to her from the line of sheds. A smudge darkened one side of his face; he smelled strong with sweat and loam.

"Come up," he said, "I'll set you in while I wash."

For a moment Illa was confused. "Jos—"

He hurried past her and led the way to the third floor of the house. He let them into a long room. A workbench against one wall was filled with a tangled assortment of equipment. The few pieces Illa recognized told her that it was a polyglot sensorem rig. Jos immediately began switching things on. He gestured for her to sit down.

Disappointed, she sighed and came forward. He offered her goggles and skin tabs with an expectant smile. Reluctantly, she let him fit her with them.

"Ready?"

She nodded. A moment later she was immersed in what should have been a fully realized experience.

The image cut from completely spherical to a flat surface, then back again. The jungle-filled canyon below rose and fell suddenly. The smooth transitions were rare and only made Illa more aware of the amateurishness of the effort. She felt as if she were constantly falling, which, she assumed, was supposed to be the sensation of flying, except that instead of exhilaration it gave her nausea. Continuity was poor. . . .

She backed out of the sensorem and removed the goggles. The contacts peeled away from her skin with faint rasps. She blinked, not moving, until her vision settled. A direct link would have helped, but Jos did not have an interface panel.

Jos perched on the edge of a stool, his fingers lacing and relacing anxiously.

"That was . . . interesting," she said. Gliding, down the length of a canyon: trestling. "That was Piric?"

"No, that was Gannon. Made the first recordings last season. Been working them since."

"I thought you'd just take me out and show me, real time."

"Not safe with only one person. You're not experienced and Skaner won't do it."

"Why not? Does he disapprove of trestling?"

"Oh, hell no! He's as good as—" He stopped, his face reddening.

"As good as Rafir was?"

Jos nodded. "Skaner was set to beat Rafir on Piric. He wanted Rafir home, so he'd be there. Skaner would have done it, too, but then Rafir came home like he did."

"And Skaner quit?"

Jos shrugged, then gestured to his equipment. "Can't afford a good set-up. Lot of this I got from Corum after Rilana made him give it up. Corum spent most his relax time sitting through, but when Rafir came home he about lived in it. Rilana had a fit. Corum couldn't bear to throw it out, so I took it. Hard to do what I want when I have to fight the tools, but—what do you think?"

Illa could not remember the last time she had produced a sensorem that clumsy, but she recalled vividly the incessant doubt that clouded her early

work, inadequacy meticulously refined by her mother. The trouble, always, was Eco Preneur's superb talent and craft. Uneasily, Illa recognized that her relationship now to Jos contained the same potential. She could hurt him, deeply, with a misplaced word.

"Not like yours, I know," Jos said suddenly. He slid off the stool and went to another table. He opened the cabinet below it and knelt. "All of them," he said, pointing.

Illa crouched beside him and saw the sensorem disks stacked neatly within. She pulled one out and examined it—"Crosheamar by Preneur"—then took out another and another. She skipped to the bottom of the far right-hand stack and looked at the cover. "Axolotl Pale by Illa Preneur."

"A lot," Jos said. "I thought you'd be older."

Illa returned the disks and stood. "Most of those are my mother's."

Jos gaped at her as if she had struck him. She did not give him an explanation, but left his cramped room.

She studied the readings, carefully matching them to the baseline displayed on her slate. She caught herself chewing her lower lip and stopped. She fed numbers into another slate and watched the points on the projection match up.

"There you are," she murmured, jittery with pride.

Illa reset her recorders and tapped in instructions. She watched Rafir's pattern and started the download. His metabolism sped up as the spikes came faster. In less than a minute "Completed" flashed on her equipment and she brought him back down.

She removed the disk and tucked it away with the others, then reset the interface. From another part of her kit she pulled out a new disk and slid it into place. The program started feeding fragments of sensorems to Rafir, allowing other systems to gauge his reactions. The disk held several thousand samples so it would take a few hours to derive a reliable set of numbers.

It was night, the window a column of blackness. Only one lamp burned in Rafir's room. Illa sat against the wall and gazed up at the wings. No Armada memorabilia stood on the bureau. The ring even his retired aunt wore was missing.

She looked up at a light tap on the door. "Yes?"

Skaner peered in. "Dinner, Co Preneur."

"Illa, please. Thank you, I'll be there in a few minutes."

After Skaner's steps had faded to silence, Illa went to the pack where she had put the disk she had just downloaded. There were ten others, each labeled with the name of a young trooper, his or her age, the name of their home systems. Four of them had been on the same world, in the same clinic, in fact. That had been the riskiest one to do since it had taken the longest time, but she had managed it before Eco had arrived. Illa had never sat through one, though.

She slipped Rafir's into her player and opened the contact plate. When the ready light winked on, she pressed her fingertips to its milky white surface, the polyceramo caps sliding liquidly, and—

—stars filled the sphere of her perception. Everywhere, all around, all at once. Her skin felt the touch of radiation, the impulses of sensor readings, the cold of hard vacuum. She moved swiftly in the company of two others just like her, elegant spindles of space-hardened composite, black-hulled and dangerous. At a thought she could grasp the entire electromagnetic spectrum.

She was the ship and it was natural, the constant fall, the windless rush, better than winged flight in atmosphere had ever been, absolute freedom of movement, not as a simple observer attached to a machine, but as the machine, alive and aware in its body, all of existence open to her probe.

Part of her sensory grid drew her attention and she saw the enemy, a group of ships coming toward them. Six, she counted, and moved to intercept, relaying tactical instructions to her companions. She commanded, it was her unit, her decision. A simple divide-and-kill maneuver, plunge right through, it had worked dozens of times already with these amateurs. She especially knew they could not beat her, they did not love the fall as she did, they were not linked to their ships as she was. Their ranks opened up for her and she tracked them with her guns.

Three bolts of energy struck her, scorching, overloading the grid, the stench and itch of burning filling her senses. It hurt. She tried to withdraw and give the system a chance to reset itself, drop the damaged feeds. She would be partially blind, but undistracted by the pain of the ship. She spun out of control and briefly she went back in to correct the tumble. Three more bolts hit. The entire interface locked open, she could see the surge enveloping the sensor net, pouring through the lines even as she tried desperately to pull out, disconnect, damnit, break off, break off, break off, and the sudden pure blaze, nova bright, infinitely present, filling the mind, the soul, the net melting, sealing her inside the glow of absolute sensation with no way to shut it off, pull out, or just fall and experience death and light and—

Illa jerked back from the player. She gulped air, lungs heaving, the edges of her vision still flickering with afterimage. It took her a few seconds to realize that the player's own automatic safety had kicked her out of the sensorem.

She looked at Rafir. He was trapped in that final image, the universe on fire.

Shaking, Illa went to her room to wash her face and calm down. She held her hands up and when they no longer trembled visibly, she went downstairs to dinner.

Illa woke from a dream of flying. She had hung from Rafir's vinerleaf wings and sailed toward a star through a blue, red, yellow, and white nebula. For minutes she lay there, staring up at the ceiling of her room, savoring the image.

She tended to her morning ablutions quickly and went to Rafir's room. The samples had run and her equipment offered its conclusions. Six of the programs showed sufficient match points to be somewhat therapeutic for Rafir, but none of them gave the kind of numbers she wanted. Any of them would "distract" Rafir from the repetitive horror of his coma dream, give him relief, but Illa found herself dissatisfied with that. The signal from the biomonitor gave relief by damping down the level of the sense impression, but it lacked substance. He was in an essentially vegetative state and would remain so until death. Illa toyed with the various possibilities each sensorem routine offered, then gave up and went looking for Skaner.

"He and Jos are working platte seven," Rilana told her, keeping her eyes on her work; she sliced and cleaned a mass of vegetables Illa did not recognize. There was a grid displayed on a board next to the counter that marked the kitchen area. Ten plattes plus the residential compound comprised Vahi Stead. "How comes your work?"

"I'm near a solution," Illa said. "But I might need Skaner's help." She studied the grid. "How far is that?"

"Twenty kilometers," Vida said, suddenly appearing from the main stair. "I'll take you."

Rilana looked up at her sister, frowning.

"Thank you," Illa said quickly, "I'd appreciate that."

"Corum—" Rilana started.

"Corum is in Leaglenn Station to pick up a shipment of bearings," Vida said, gesturing for Illa to follow her. "This is no trouble for me."

Illa felt Rilana's disapproval all the way outside.

Vida strode across the bare earth to the shed. Beneath its metal roof farm machinery stood in ranks, waiting for instructions, complex agro motiles that looked to Illa like rearranged war engines. Several stalls were empty, the service modules on standby. Vida steered a transport out into the sun and gestured for Illa to get in.

Illa clutched the seat with one hand and braced herself against the dash with the other.

About twenty minutes out Vida turned off the main road onto a narrow spur. The transport bucked over the rougher grade until they came to an enormous aegis tree. Vida stopped beneath its tangles and shut the engine off.

"We can talk here," she said, moving herself up to sit on the back of the driver's seat. "What do you think of this place?"

Illa stepped out of the transport and leaned against the frame. Vida regarded her evenly, waiting, and everything about her, the easy way she rested her forearms on her thighs, the relaxed readiness, the alertness, reminded Illa of her own mother. The impression rattled her and she looked away, at the horizon defined by grain.

"I don't know what you want," she said. "It's pretty. It smells odd. It's big."

"Don't worry about my feelings, I don't give a damn. Be truthful. It's backward, uncomfortable, and dull."

"Then why are you here?"

"Duty. I brought Rafir home." Vida looked momentarily uneasy. "I also am the reason he got hurt. I convinced him to join the Armada." She shrugged. "That was enough for Rilana in itself. I didn't care. Rafir was a natural pilot, it was as if he were born to it. Rilana had no right trying to keep him here. But it hurt her when Rafir signed up so fast. She blamed me, of course, but she treated Rafir badly. I wasn't here at the time. Even if I had been I don't think it would have been any better. I did promise to look out for him, though, so when he was injured . . . well, I resigned and brought him home. I still look out for him." She narrowed her eyes at Illa. "Your turn. Why are you here?"

"The Armada—"

"Is sending your mother, not you. I still have friends in Command. Eco Preneur is supposed to be here now, not her daughter. In fact, Eco should be here day after tomorrow."

"Did you tell anyone else?"

"No."

"Why not?"

"I want to know first. I already failed once to protect Rafir. It won't happen again."

Illa filled her lungs and tried to control the faint trembling in her legs.

"You couldn't have protected Rafir. What happened to him . . . there would have been nothing you could have done."

"I'm listening."

"The programs that allow the interface with a fighter were constructed by Eco."

"Your mother."

"Yes. The most recent version was modified. It gave a higher degree of access, quicker response time—a compression module, to accelerate time sense."

"I'm familiar with them. Good program."

"Everything Eco does is good. But she added something. A buffer with a record loop. It's a trapdoor system, hidden from standard diagnostics. It's accessible by a proprietary system."

"I suppose only Eco has it."

"No. I stole it. There's a flaw. Maybe, I don't know, maybe it's not a flaw. But it interferes with the automatic cut-off. Under certain circumstances it won't let the pilot out."

Vida stared at her for a long time. "I see. So Rafir was caught in his system for . . . what?"

"The record buffer keeps working even after burnout. Eco could download from it and have a sensorium of the pilot's death."

"What have you been doing?"

"I'm getting to each one first. I don't think it's right, I'm keeping her from getting them."

The silence stretched. Vida gazed out at the fields, lightly tapping a finger on the steering wheel. Finally, she shook her head.

"I think that that's not the whole truth."

"Anything else is personal."

"This is personal. Rafir is my nephew, my responsibility. You're here by virtue of a lie, Co Preneur. I want to know why or you will not finish what you want to do. Everything I know about you and your mother doesn't suggest such altruism. I want to know it all or I bring in the garrison provost and wait for Eco."

Illa walked away from the transport and tried to control her anger and fear.

"Time passes, Co Preneur."

"Are you familiar with our work?"

"The sitchers? Yes, I know them."

"You know that they're constructed from real experience, that we edit actual emotional responses and sensory detail into the fictional frames?"

"Yes, of course."

"When I was three, my mother took me from Sol to Fornax. She had a commission and the work needed to be done at the site. It was my first interstellar trip. I was very excited. Eco decided to record me. There's something particularly wonderful about a three-year-old's joy—still an infant in most ways, but the conscious mind is engaging and memory is accessible in a reliable way. So she had me tapped. I didn't care, it was even more fun to think I was helping my mother by being happy. But the ship was sabotaged. I don't know what group, but the translight envelope generator went down, then the environmental systems. We were adrift, cooling off and dying. The life pods didn't even work, nor did the TEGlink, so we couldn't communicate for help.

"Three days. It went on for three days before the rescue ships found us. Not too bad, really, we were lucky that it all happened pretty close to Pan Pollux. But in three days people turned so ugly. There was one riot. The shipmaster was killed and the crew responded by killing half a dozen of the rioters. People went around like robots, blank, lifeless—at least, when they weren't screaming and wailing like the damned. It was terrifying. I was terrified. I wanted Eco to hold me and protect me. She never touched me. She let me experience the full weight of three-year-old horror at what I couldn't understand. I was hysterical by the time we were rescued. After we were taken off, Eco became a perfectly nurturing parent again. But something had changed between us. Then later, when I understood that she had taken the recording and put it in a *sensorex*. . . ."

"So you're doing this to get back at her? You're grown now, haven't you gotten over that?"

"I thought so. For the most part, yes. I was terrified of shuttles and starships for years after that, but Eco got me therapy and I recovered. I've never really felt comfortable around her since, though, and when I found out about this I became outraged all over again."

"Why?"

"It's complicated."

"Always is." When Illa remained silent, Vida shrugged. She slid down into the seat. "I'll take you to Skaner, then leave you. I'm going to make some inquiries." Vida smiled. "Don't worry. I'm on your side."

Skaner shook his head. "No."

Illa blinked, startled. Even Jos, working on the other combine, looked at him with shock. She wished Vida had stayed instead of dropping her at the worksite and going back.

"No?"

Skaner closed the panel over the datafeed. "Promised I wouldn't. After Rafir came back, no more trestling. Mater has enough worry without making it worse by doing stupid."

"Skaner," Jos said, "it's for Rafir. Didn't you hear?"

"Heard. Still no. This mean you can't do anything for him?"

"No, not at all, I can." Illa's thoughts jumbled from the unexpected refusal. "But this would work better. Everything I have would only be sufficient. This would be—"

"You want it for a new sitcher. That's all."

"What?"

"Figure to record me trestling for Rafir so you can feed it to him. Maybe it'd be better than what you have, maybe not. But *then* what? You have new material to go make one of your shows for people. I don't like that."

Illa bristled. "That's absurd."

"Is it?"

"You can have the damn original if you want!"

"No. I promised."

"Skaner—" Jos began.

"This is Vahi concerns, Jos," Skaner snapped.

Jos stepped back from the machine as if he had been punched.

"Answer is no," Skaner said. He walked away, toward another farm machine.

"Co Preneur," Jos said. "I'll do it."

"What. . . ?"

"You can record me. I'll do it."

Illa looked at Jos. He was watching Skaner, jaw set, angry.

"You're upset, Jos—"

"You need a sitcher for Rafir, I'll do it."

"Can you do Piric Canyon?"

He blinked, his anger dissolving into uncertainty. "Sure. . ."

"No. You're *not* sure. Thank you, Jos, but it needs to be Skaner."

"You don't think I'm good enough."

When she looked around, Jos was walking away, hands balled into fists at his sides. For a moment, she considered going after him. Instead she ran after Skaner.

"If you don't," she said, catching up to him, "Jos will."

"Got what you want, then," Skaner said. He worked on the diagnostics of the big machine.

"No. Listen. Jos isn't right for what I'm trying to do."

"What is that? You never told me."

"I'm trying to repair damage I caused."

Skaner's hand stopped. He licked his lips and stepped back from the machine. "Explain that?"

"It's complicated—"

"Always is. You already said you can't cure him. What can you do?"

"I can give him better dreams."

"What good is that? Dreams are . . . like the wind. Can't hold them, can't share them. Not without . . . eyes . . . voice . . . legs and arms. . ."

"But that's all Rafir has now. Dreams. The one he's been having is terrible. You could give him a good one."

Skaner shook his head. "I promised."

"Skaner—"

"Leave me. Please."

Illa walked away. She saw Jos, sitting beneath an aegis tree. Disappointed, she started toward him.

Piric Canyon looked like a vast waterless river. It cut Leaglenn Massif almost in half. Four trestles jumped it. This one, the narrowest gap, stretched half a kilometer from lip to lip. The supporting arches soared high overhead. Walkways lined the outer edges.

Illa carefully attached the feeds to Jos—chest, back, arms, legs, the skull, alongside the temples, and just below his eyes—and ran through the links three times while he prepared his wings.

"Idea is," he said, looking out at the canyon, "is to make that trestle, then come back."

"It looks like almost two, maybe three kilometers."

"Three, about."

His movements were quick, jerky, and he kept glancing up nervously.

"Have you ever done it with vinerleaf wings, Jos?"

"Once. Not here. Most people now use sythlex. Safer. But for records, you use vinerleaf." He pointed toward the far trestle. "See, what Rafir did, he went all the way, but didn't land. Turned around, looping over the trestle, and made it back here, single flight. Did it on vinerleaf." He grinned, his face showing his astonishment. "Never before."

"And Skaner could do it?"

Jos shrugged. "Skaner made the next trestle on vinerleaf, came back. But he touched down."

"Mmm. What's the point of doing it with vinerleaf?"

"Tradition. Leaf falls apart soon. Takes something to sail them any distance."

Anything falls apart if you sail it far enough, Illa thought. The biofeed showed Jos's anxiety. She did not know if she could filter out all that fear and worry. Maybe the thrill of the flight would overwhelm it and she would end up with a solid recording.

"Ready," Jos said.

A transport rumbled onto the bridge. Skaner stopped near them and jumped out.

"Jos."

He came onto the walkway.

"I'm doing this, Skaner."

"Why?"

"You wouldn't."

"Rafir's my brother, not yours."

Illa saw the words hurt Jos, saw his face change, shift from dismay to pain to anger. She glanced at her readouts. It was falling apart already, his anxiety levels even higher now.

"I'm doing this," Jos repeated.

"Let me."

Jos glared at Skaner. "You said no!" He looked at Illa. "Ready?"

Without waiting for her answer, Jos mounted the railing. The wind whipped at him and he teetered. Illa wanted to stop it, but she started the recorders instead.

He flexed his knees and launched.

Illa squatted before her monitors. Jos's responses skewed into nearly single-minded fear. She made adjustments and found a substrate of other emotions, their presence faint. Jos was terrified.

Skaner banged the heel of his hand repeatedly against the railing, his gaze fixed on Jos.

His white wings made him easy to see against the green and wispy grey of the canyon jungle. He banked from side to side, dancing across the complex pockets of warm air boiling out of the growth below.

Suddenly he dipped, fast, as if the thread suspending him had broken. Illa heard Skaner suck in his breath, saw the spike on Jos's readings, then looked out to see him recover, swerve up and catch a new thermal.

He reached the far trestle without another mishap. His pulse and respiration showed very high; all the other diagnostics said he was far from stable enough for a return flight.

"He's staying," Skaner said.

"Jos?" Illa spoke into her comm.

"Yes?"

"Are you all right?"

"Never better."

"Are you going to come back?"

"Don't think so."

Skaner knelt beside her. "Got what you need?"

"No. It's too much one sensation. He's—"

"Scared. Stay here."

He went to the transport and drove away.

Illa watched as one by one the feed from Jos's patches died. She could not see him, but she could imagine him tearing them off. She sat down and stared the length of Piric Canyon. Her mother would arrive tomorrow, finally catching up with her, and she still had not finished with Rafir.

She wiped at her face and her palms came away wet.

"Illa."

"Skaner?"

"Jos is connecting the feeds. Set your gear."

The comm died. She watched the readouts as they came back on, one by one. Different now, Skaner's readings. He was much calmer, though there was a definite spike of anger, but even as she made the adjustments for a new recording it faded.

"Ready?"

"Skaner—"

"Ready?"

Illa touched the contact. "Yes."

"Get it the first time," he said. "Won't be another."

On impulse, Illa opened the cover on the interface and pressed her fingers down—

—below, seeming both closer and farther at the same time, the thick jungle spread out, waiting to receive a drowning body. The harness tightened as the wind filled the wings. Balance took constant attention, minute flexings of the ankles and knees, leaning into the moving air just enough, falling back when it let up. The feed contacts felt strange, uncomfortable, but it was possible to ignore them. The far trestle looked small, toylike in the distance. One more gust, a flex, *push!*

Falling forward changed to falling downward. The green became detailed, leaves proliferated fractally, strands of fog rose. Temperature varied with depth, growing hotter, shoving around air masses in an attempt to equalize. The wings bucked, jerking side to side as they tried to snag a draft. The fall continued, each possible updraft avoided until just the right one, and then a tug on the control lines brought the wings down just enough, let them fill, and the harness became a giant hand gripping around the torso, ribs pressed, and descent changed to ascent. The horizon line wavered, threatened to roll completely over, then stabilized and the wing held, buoyed on the breezes.

Now came the difficult part, the dance from pocket to pocket. Some lasted a quarter of a kilometer, but gave out eventually as the heat funneled up out of the center of the declivity and escaped. It was necessary to move from wall to wall, tracking the new thermals, riding them back the other direction as they fed into the low pressure column, faded, and then fell toward the opposite side, find another, in a long, slow-motion bounce, like a boat riding crests, tacking against the wind. The trestle grew larger, became real, became large, and there was Illa, crouched against her equipment on the walkway, her head back—

She pulled out as Skaner sailed beneath the bridge. She ran to the rail and looked down, but he was gone. She turned in time to see him rising, rising on the far side, a steep climb that emptied his wings, and he turned deftly, just missing the top of the arch and falling at a shallow angle, now truly gliding on less active air, down into the trough again and toward the far trestle. The soft glide carried him nearly a kilometer before he dropped low enough to start snagging on the fey hot currents again.

Illa's heart hammered. She leaned on the railing and watched Skaner complete the flight and set down on the far trestle. He had not fallen like Jos. It seemed to Illa that he had made it effortlessly.

"Get that?" he asked.

Illa checked her equipment. "Y-yes. Good take."

"Good. Jos will pick you up."

And again the comm shut off and she was alone on the bridge. After a time she bent to secure her gear.

Jos drove back to the compound in rigid silence. There was a cut over his right eyebrow, but Illa did not ask about it. He parked the transport under the shed and stalked away. Illa draped her bags over her shoulders and trudged up to the house.

In the few seconds her eyes took to adjust, she saw Vida, Rilana, and Skaner sitting around the tea table, watching her. She felt ashamed for no specific reason, a reaction left over from all the times her mother had stood over her, watching while she worked, wordless. When Illa finished, then the criticism came, and there was always something wrong, some simple thing usually that a word at the right time might have corrected and allowed the learning to be less painful, less humiliating.

Illa filled her lungs to speak, then saw movement. A head turned to peer over the back of a couch. White hair, large eyes, faintly iridescent skin.

"Illa," her mother said.

"Eco."

"Been busy, haven't you?"

"I still am. Excuse me, I have work to do."

"Stay away from my son!" Rilana came toward her. Vida jumped up and caught her sister's arm and held her. "Liar!" Rilana continued.

"I'm quite sure my daughter hasn't lied outright," Eco Preneur said, standing. "At least, not to hurt. It's not her tactic."

"Leave Rafir alone!" Rilana hissed.

"Please, Co Vahi," Illa said. "I have to finish."

"You're quite finished, Illa," Eco said. "It's time to leave these people to themselves."

"I don't think so, Co Preneur," Vida said. She tugged at Rilana, gently forced her back to her seat. "I think Illa should finish with Rafir."

Eco's expression was thinly tolerant, clearly disapproving.

"I checked. What you're doing, Co Preneur, was not part of the commission you undertook for us. I doubt a general board of inquiry would pass on it."

"I'm glad we both have friends," Eco said. "If yours fought it out with mine, who do you think would win?"

Vida smiled. She looked at Illa. "Go up and do what you need to. Your mother and I have matters to discuss."

"Vida—" Rilana snapped to her feet.

"Enough," Vida said. "No more guilt. It's not your fault, it's not my fault. That ends. What has happened to Rafir can be laid completely at Co Preneur's feet. Go on, Illa. Finish. We'll be right here."

Hesitantly, Illa carried her gear upstairs, to Rafir's room. Before she closed his door, she heard yelling.

The recording required very little editing, almost no enhancement. Illa damped the fear levels to a faint background presence, except right at the

beginning, at the launch. The other responses fell into an elegant arrangement. She sat through it twice and both times emerged breathless and rushed.

She made a copy and stored it, then began preparing the sensorem for load into Rafir's interface. Halfway through came a knock at the door. Skaner entered the room.

"Done?" he asked.

"No, I'm setting it up now."

He nodded. "Vida's feeding your mater a bad time."

"Good. Eco needs to hear sometimes that not everybody loves her."

"Is she right? About what happened to Rafir?"

"Him and sixteen others that I know of."

"Why? What use is it?"

"For Eco? New sensorems. Powerful material, death, especially heroic death."

"But they didn't die."

"It's a debatable point."

He did not speak again until she finished. She slipped the disk into the player.

"He'll experience my trestle?"

"Yes. He'll be flying."

"Mater didn't want him to leave. Vahis came with the first wave, been here since. Rafir didn't want that. Didn't hate it, not at first, but mater pushed. When Vida got him a commission he took it to get away. I don't know if that's what he wanted, but mater didn't want it, so it was right to Rafir."

"And she made you promise to stop trestling because of that?"

"No. She never asked. I just promised. I thought—Rafir is eldest, not me. It's not the same. I thought giving that to mater would make up the difference." He shook his head. "But it never does."

Illa waited for him to say more. When he did not she touched the contact on the player. "It's loading."

"Your doing this is to hurt your mater?"

"I was. When I found out about it I decided that it was time Eco didn't get what she wanted. She was always so fortunate in her choice of material. She didn't care about how she got it. I didn't either, but her work was always better than mine. But after I did several of these, it changed."

"So why are you doing it now?"

"I don't really know."

"Maybe you're doing something she can't do."

"I don't know. . . ."

The sensorem finished loading. Rafir's monitors began to register a change. When she was certain it had loaded successfully, she unhooked her equipment. The readings said he was experiencing a vivid dream. The bio-monitors compensated but did not completely damp the physiological responses. Pulse quickened, adrenaline flowed, the neocortex showed global neuronal response.

Illa secured all her equipment and packed it away. Then, on an impulse she was afraid to question too closely, she handed all the discs, including the copy she had made, to Skaner. She tapped the last disc.

"Your flight."

"And these others?"

"Give them to Vida when I've left. Whatever she feels best."

He held them for a time without moving, then looked at Rafir. He caught his breath.

Tears ran from Rafir's eyes.

Jos had joined the others. Illa saw him give Skaner a hard look. Eco sprawled against the back of a sofa, her eyes half-lidded. Illa shuddered—she knew the anger masked by that expression—and went directly to Rilana.

"I'm done. Everything is all right now. Rafir's no longer suffering."

For a terrible instant Rilana's face flashed with betrayal and fear. "He's—"

"Rafir's alive," Skaner said quickly. "He's fine. New dreams, that's what she meant."

"An angel of mercy!" Eco said acidly. "A new role for you, Illa. You really shouldn't promise what you can't give, though."

"Everything is all right," Illa said slowly.

"You're sure?"

Illa looked at her mother. "I didn't *use* these people!"

Eco laughed. "No? What do you call *this*, then? You've been interfering with my work. You needed their cooperation to do that." Eco slid off the sofa and came up to Illa. "You thought it would be better if I were barred from doing what I intended. You interfered. That has a cost."

"But these people won't have to pay it."

"You think not? Are they more or less upset than if I'd simply come, retrieved my data, and left?" She glanced over her shoulder. "Jos, you have something to say?"

Jos looked startled to be suddenly the center of attention. He stepped forward shyly. "I, uh . . . I'm joining the Armada."

The responses came all at once, forming a nearly meaningless jumble.

"Damn!"

"No!"

"Jos, don't—"

"Why?"

Eco smiled triumphantly at her daughter. Jos looked from face to face and stopped at Skaner.

"Why, Jos?" Skaner asked.

"You won't," he said. Then he looked at Illa.

"He wants to be a hero for you," Eco said. "You've made an impression."

"What do you know about heroes?" Vida said.

"Quite a lot actually. My work has made enough of them."

"Leave," Rilana said. "You two. Leave."

"Of course," Eco said. "Illa, are you packed? We've overstayed our welcome."

"Jos," Illa said, "don't do this."

"What am I supposed to do?"

"Whatever you want."

Jos shook his head, anger and confusion tugging at his face.

"Talk to Skaner, Jos," she said. "Please. *Talk* to him."

"Illa," Eco said.

At the change of light, Illa looked out the window. The train had emerged from a cleft between two high ridges and shot out over a deeply green valley. The drop was vertiginous; she imagined what it might be like to fall from this height, strapped into broad wings. Fog smeared across the thick growth below.

Then the train entered another cleft and the window filled with dark blur. "One puts up with this all the time," Eco said. She sat across from Illa, eyes closed, head back. "People who don't understand your work, draw all the wrong conclusions. I expect it. From them, not from *you*." She sighed. "At least a few are left. It's not all a loss. You changed nothing. Not between us, at least. Why did you do this?"

Because you didn't give me better dreams, mother, she thought. She wondered why she could not say it.

Illla slipped a hand inside her jacket and touched the note Skaner had given her as he helped load her gear into the transport. She rubbed it gently, as though it were a talisman.

"I don't blame you for anything," it said.

It was strange to be so universally absolved. She looked at her mother and thought how very wrong she was. *Everything* was changed. It could not be otherwise.

Illla closed her own eyes and dreamed of flying. ○





Robert L. Nansel

XIAOYING'S JOURNEY

Robert Nansel has a degree in robotics engineering from the University of Washington in Seattle, and is a 1995 graduate of Clarion West. He lives near Pittsburgh, Pennsylvania, with his wife, a reconstructionist rabbi. Although he writes a nonfiction column on amateur robotics, his first story for *Asimov's* is only his second fiction sale.

Illustration by Dorryl Elliott



Suppose you are a clever girl and you are in your secret place tracing the data flows of New Prosperity City when you see the sick woman reflected in the screen of your laptop. She is hugging empty air to her breasts and she is singing a wordless song.

You are sitting cross-legged with her on a cotton pallet atop spools of unused fiber optic cable, but she doesn't see you. She curls up on the pallet, cocooned by equipment racks, cable trays suspended from the ceiling, shelves of data manuals, outdated schematics, discarded circuit modules, and assorted broken keyboards and cable splicers.

The room is windowless, a closet, lit by a single fluorescent tube which gives the sick woman a bruised cast to her face. And that face—

The sick woman's name is Liu Xiaoying, though she has been called other names. She is fighting her way back from nightmares and deadness, but she's afraid to open her eyes because the nightmares might be true. Something heavy and cloying tugs at her mind, and she feels as if she swims in a fog, a narcotic honey that would pull her back to sleep and passivity.

She moves her hands across her belly, and when she feels the absence there she cries out. Gone!

Dr. Gao might try to comfort her, even though she had told Xiaoying this might happen, she had told her, but Xiaoying didn't want to believe the other colonists could be so cruel.

They thought they could make her forget her baby, but Gao knows how it is to lose a child. And Xiaoying, laying there on the rumpled pallet, looks so much like that child Gao nearly cries herself. But Gao is the strong one. She doesn't cry.

Dr. Gao tells Xiaoying: You mustn't cry.

But a cry is building up inside Xiaoying, and it is the roar of a river in flood.

Xiaoying covers her mouth to stop the roar, but it isn't enough. She bites hard on the heel of her hand. She feels the pressure but not the pain, and the river is still rising; the swell and crest of the flood threaten to sweep her away. She bites harder until pain pierces the roar.

The river recedes and she blinks, tears in her eyes. Her clothes—short sleeve, cotton blouses and black slacks—hang from the cable tray above the pallet, leaving no room for her to sit up. She is dizzy, so she doesn't try to sit up.

Dr. Gao touches her fingers to Xiaoying's lips.

Xiaoying pushes herself up on her elbows, but that makes the dizziness worse. She tastes blood, salty and metallic. The bite she made throbs, but she is glad of it. The pain makes a dike that holds back the flood.

Pain gives you clarity and substance, Gao is saying; it makes you real, gives you purpose. See?

Xiaoying swings her legs over the side of the bed and stands. In Earth gravity she would surely fall, and even in the weak Lunar gravity she wobbles for a moment. Dr. Gao steadies her.

Black fiber optic bundles as big as her leg curve up from the cable trays and disappear into conduits in the ceiling, and Xiaoying thinks of all the data flowing through those data pipes, phone conversations, megabaud murmurings of computers, security camera video feeds. Surveillance data. You know all about that river of data coursing through the arteries of New Prosperity City. . . .

But the other river is still there raging behind the pain. That way lies destruction, Dr. Gao says. Think of something else, anything else. Try *Tai Chi*.

Leaning against a fiber optic patch panel, Xiaoying closes her eyes and lets *Tai Chi* take over. She breathes deeply (smell of plastic and ozone, the clean odor of computers untainted by people stink); she moves through the first fifteen warm-up movements. Good.

Though her eyes are closed, she can feel the older woman mirroring her movements. She feels *chi* welling up within her, sharpening her senses, giving her strength. And anger.

In China she tried to do things their way, but in the end the old men took everything she ever loved. Here in New Prosperity on the Moon, she thought that things might be different, but now they've taken her daughter.

The river floods out of its dikes now, and she is swept out of your secret place into the corridors of New Prosperity City. The flood rages in her head and she doesn't know anything, the thunder is loud, she can't think, except, except—

Gao urges her on, yes, fight them, yes, Xiaoying, fight them! And Xiaoying knows what she must do: take back her daughter.

"It was riot," Raisa is saying. She cradles a kitten in one hand. "Mamma cat would *not* come out of zero g toilet." She sips her coffee and makes a face. "Who brewed this poison?"

Carol puts her compad down. The personnel evaluations could wait. "May I?" She strokes the calico furball. Its eyes are still closed. "It's adorable."

Kimberley mutters into his tea. "We had to use germicidal baggies instead of the toilet the rest of the trip from LEO. Thank the techs at Korou for that. The wankers."

"You don't like cats?" Carol asks sweetly.

"Can't abide wild beasts. I expect the techs will let mosquitoes on the shuttle next."

"He's just mad because mamma cat bit his ass. Her claws were sharp."

They are in the cramped "C" observation cupola of Hadley Lunar Research Station, with its grand view east to Mt. Hadley and southeast to Silverspur; only the crests of Hadley and Silverspur burn above the velvet horizon. Beads of light—the headlights of robot rovers—bob along the Rim Road, defining the shape of Hadley Rille: a black sidewinder basking on the plain, lost in the shadows of the long lunar sunset.

"We taped helmet camera to privacy screen to watch horrible birthing process. One, two, three, pop, pop, pop. Like sausages."

Carol fills her coffee cup. "I saw some of the video. Did the other kittens survive?"

"They all died."

"We didn't save that video," Raisa says soberly. She runs her hand over her shiny black hair, so short on the sides that her scalp shows through pink.

"Mamma cat couldn't keep all kittens in one place. Kitten floats off, mamma puts back, even though she is sick, dehydrated—good mamma!"

From her T-shirt sleeve, she fishes out a case rolled up like a cigarette pack. Inside is a plastic syringe. "But mamma died and then kittens died. All except Chaika. She flew away. That's why I call her 'Chaika,' Seagull." She draws cream from the creamer into the syringe. "Wake up, little seagull. Time to eat." Raisa squirts some cream in Chaika's mouth.

A tall black man in UN fatigues enters the cupola from the direction of the Command Center. Carol smiles. "Leftenant Savimbi. You're just in time. Have a seat."

"Carol, hello. Kimberley. Raisa. Good to have you back in the fold." Savimbi pulls up a chair. He is a taut, athletic man in his early fifties, hair going to gray. His hands are broad and flat, his fingers long. Carol imagines those fingers plucking the strings of a violin. Firm and precise as his British accent.

Chaika is done with the cream. She licks her whiskers drowsily while Raisa refills the syringe.

"And this must be the celebrated Kitten in the Loo," Savimbi says.

"Chaika."

"'Chaika.' Poor creature. What a dreadful place to be born." He tries to pet her, but Chaika sinks a needle claw into his thumb. He jerks his hand away. "The little dickens!" He looks in wonder at the scarlet drop forming on his brown skin.

"'Nature, red in tooth and claw,' eh Lieutenant?" Kimberley says and laughs. He tugs at his scraggly beard. "The Moon's going to the devil."

"Kimberley doesn't approve of 'wild beasts,'" Carol says.

Savimbi puts his thumb to his mouth. "At the moment, I'm not sure I do either. Stay with seismology, Kimberley. Less personal danger."

Kimberley grunts. "Except I have to compete with all the new construction the Chinese are doing. My last tour, half my seismic stations picked up naught else but their thumpings and poundings in Sinus Iridium. A thousand kilometers away." He snorted. "Now they say that China means to quadruple the size of New Prosperity over the next five years. Quadruple! That'll be over eight hundred more people clomping about. That will be it, then, won't it? The end of serious scientific studies of the Moon."

Carol shook her head. "What do you mean?"

"They mean to make it a colony, not a research station. Babies and settlers, what?"

Raisa arches her eyebrows. "What do you have against babies?"

"In two decades, the Moon will be nothing but shopping malls and slag heaps. Nobody will be doing science. Curiosity will be dead."

"Curiosity is stubborn. Chaika is here because she is stubborn. Not just curiosity. Biology."

"Just because biology can doesn't mean biology should." Kimberley says. "With fifteen billions on Earth, why do we feel compelled to duplicate the whole sodding mess up here?" He dumps spent tea leaves out of his teaball. "We have a chance to do things differently here. The Moon is the greatest natural laboratory in the solar system. And the mindless thundering masses are bent on ruining it."

"You're doing good work here. We all are," Savimbi says mildly. "And the long-term plan was always to expand Hadley. I've been here since the beginning, when it was just eight men and it was purely military. Now we're at forty, most civilian. I count that an improvement."

"For how long, though?"

Carol says, "The main hurdle to doing good science is having enough people on site. We've proven that. Remotes will never be enough. Nothing can substitute for two eyes, two hands, and a brain right here."

"Besides," Raisa says, "if China colonizes the Moon, we should, too."

"Rubbish. By that reasoning, we should scrap the Greenhouse Gas Treaty and go back to burning coal. Or building nuclear power plants. After all, the Chinese are doing it. It seems so pointless to blindly follow them. Can you all imagine raising a child in this sterile environment?"

"Sterile?" Carol looks around at the bulletin boards festooned with children's drawings faxed up from Earth, hanging ferns in pots, the Hadley Football Pool calendar, and haiku poems on paper banners. Animal figurines carved from lunar obsidian line the window seals. An intricate sand painting depicting Hadley, executed entirely with different-hued regolith fines, adorns the bulkhead between the windows. "I think it's starting to look homey. I like it."

Kimberley shakes his head. "Let's talk about something else."

Xiaoying is caught in the river torrents; segments of her past float by like trees torn from the banks. She clings to one:

Governor Qi never intended to allow her to keep her baby. Gao had warned her about him. He didn't appreciate her talent as a simulationist. He never thought of her as more than a rough country girl from Fujian province. How cold he was the day she told him she was pregnant.

Dr. Gao laughed a bitter laugh: men are like that—they like to tell us we're all equal since the Liberation. It makes them feel morally superior to grant us the illusion of equality.

But Xiaoying ignored her, because Gao always talked that way.

It wouldn't have mattered in any case. Xiaoying knows she isn't pretty. She is good enough to be Qi's whore, but he would never marry her, she knows that. She isn't even a member of the Party. She is proud of that.

Qi's rejection hurt. But the important thing, the thing she carries as proudly as non-membership in the Communist Party, is the life inside her.

Think of it, Xiaoying! The first child to be born on the Moon will be *your* child. If Qi will not claim his child, then that is to his shame, not yours.

Yet, she feels uneasy clinging to this memory tree; the branches are sharp, slick. Treacherous. Like this branch:

The day her brigade leader in the Simulation department called Xiaoying into her office.

It begins now, the incessant demand that she do the right thing, the responsible thing, the thing that she had done once, long ago, had done—

She wants to let go and just drown, but the river carries her on—

Brigade Leader Chen Suzhen is sitting at her desk with Xiaoying there in the river in the corridor. Chen is a severe, square-faced woman in her fifties, one of the few women in a leadership position in New Prosperity.

Xiaoying likes Chen because she is direct and fair. Chen has genuine concern for the people of her brigade. She sits with folded hands on her desk. Her back is straight and she speaks: Xiaoying. Yes. I've been informed you are pregnant. (Chen doesn't ask if this is true, she knows it is; it's her job to know.)

Xiaoying wants to shout. She wants to run away. She does neither. She looks down and says, Yes . . . four months.

Chen presses her thumbs together, a pensive gesture, and speaks: Party policy is now to encourage women in New Prosperity to have children. But only married women can enjoy that privilege. And such women must have the permission of their work units.

Strange currents in the water tug on her legs. She grips tighter. Eyes respectfully below Chen's, Xiaoying says that she understands.

Chen regards her.

You are my best simulationist, she is saying. Yes. Temperamental. Too proud. I would hate to lose you—and here she puts her hands flat on her desktop in emphasis—but choices have to be made.

Choices. That's what the currents are and that's why she dreads them: choices. A tear reaches from her eye to the river surface and disappears.

Chen's expression softens and she leans forward. I know this situation isn't all your fault, she says. Some men—some men lack a proper sense of responsibility. (She leans back.)

Yes. I have decided. If you register a marriage by the end of this week, I will give you permission to have the baby.

Xiaoying is astonished. In Fujian, there would have been no question; her brigade leader would simply have accompanied her to the abortion clinic. She feels relief flowing like the cool river water in her veins.

Somewhere a current tugs and she remembers a walk in a long ago September, a walk with another brigade leader . . . but the memory is hazy, crazy, old. She doesn't want to think about that now. She is crying, Thank you (tears flowing freely) thank you.

She is dismissed.

Xiaoying considers her options. Through mutual friends, she finds that Ah Gen, who works as a biotechnician in Hydroponics Brigade, would be willing to marry her. While Ah Gen is several years younger than her and perhaps lacks imagination, he is a steady, decent man; he will make a good father.

She registers the marriage and receives Brigade Leader Chen's official blessing: she can have her baby.

The memory flood washes her through the corridors of New Prosperity for this time, a happy time for her. Has she ever been happy?

Hold tight, now, steady . . . it's not a complete happiness: people whisper about who the real father is. But when they look upon her and Ah Gen, they smile.

A baby is a baby.

The other colonists do favors for her and find excuses just to talk to her. Then—

Then another woman in the colony announces her pregnancy. Her name is Jian Ling. She is beautiful, a cultured woman, and a doctor, besides. Her husband, Wei Liguang, a team leader in Construction Brigade, beams with obvious pride. No whispers about who the father of Jian Ling's child is!

Xiaoying might have been jealous of Jian Ling and perhaps even have rebuffed her timid overtures of friendship. It would only be natural. *She* would be first, that should be all that mattered.

Gao, because she is older and understands people better, isn't so sanguine. You have to get along better with people, Xiaoying. Don't be so stubborn. Xiaoying?

But Xiaoying isn't listening. She's thinking about a stubborn girl in a village, she forgets where or when.

Maybe you've heard about this girl, how she refused—refused!—the humiliating bride price a certain Deng Zhongmao offered her father. As if any other man would have her! Her father was a poor man with only a few fish ponds and some geese. Despite the villagers' clucking, she stayed in school and learned algebraic theory and studied the words of the new Leader, not the great one, the one who made the American Nixon come to China when everybody was poor, but the wily, cigarette-smoking leader who brought prosperity back to China when the old leader died. *That* one.

Would it have been surprising for such a girl to quickly master the new government computer in her school? No more surprising than a girl running

away to Beijing and attending Qinghua University and rising to the top of her class. But that's the way it happened.

You could have told the girl as much. If she is smart, if she is willing to work harder than anybody else, she might do it, even in China.

Like this: by sleeping with the head librarian, she might get a job in the University library when she is seventeen. She might live in the broom closet in the hall and there study books about American computers and American software . . . beautiful software! The patterns and logic of it weave through her brain like song. It calls to her in her dreams, a promise of a shining China when everybody would be rich like Americans.

In a broom closet, by the dirt-filtered light of a 40-watt bulb, in the stacks re-shelving books, or on the grimy streets of Beijing, a clever girl like her might unravel the mysteries attending spreadsheets and macros and debuggers. She might master Object Oriented Programming and earn money writing programs to help perplexed young men pass their computer science classes, enough money to buy a used laptop—her own computer!—from a drunk Hong Kong businessman. Such a girl could go far.

But Gao won't let Xiaoying think about the stubborn girl. Maybe the girl reminds Gao of somebody she once knew, or maybe she reminds her too much of Xiaoying. No matter.

Gao wants to say to Xiaoying, *listen*: you shouldn't argue so incessantly; it makes you look immature. Or, *listen*: you shame yourself when you snub Jian Ling.

Xiaoying shrugs and says she'll try not to argue so much.

And Jian Ling?

Jian Ling, the beautiful, Jian Ling, the doctor.

Jian Ling, the cataract.

That roar is the river in Xiaoying's head, maddeningly loud, if it would just be quiet, she could *think*. Gao looks at her in the way that always seems as if she is looking right into Xiaoying's private thoughts. She might try, but she can never ignore that probing gaze. It scours her resistance away like a swift stream.

She makes promises. She promises Gao she'll be polite to Jian Ling, she will be friendly. As her belly swells, it becomes easier to forget her pride and think instead of her child's future welfare.

Most surprising to her is Gen. He becomes a true source of strength for her. Living with him is awkward at first. He is so formal and lacks Qi's creativity when it comes to sex, but he is gentle and undemanding.

In the end, though, it is the whispers that win.

Her daughter is gone, and she must make plans to get her back.

But how?

You are a clever girl. Tell her how it is:

If you are to get your daughter back—if you are to keep her—you have to get away from New Prosperity. But where to go? There are two possibilities.

The first is Earth. Earth is no paradise, but at least a woman and her baby could disappear into the crowds there. But that would mean stowing aboard the weekly shuttle, and the shuttle is a nuclear rocket, unapproachable except through the shielded passenger-access tubes. Impossible. Forget it.

The only other destination you have any hope of reaching is the American research station at Hadley, over a thousand kilometers southeast across Sinus Iridium and Mare Imbrium. You can get there by cargo rover or suborbital hopper. You don't have any experience with hoppers (and they

are all in use up north, anyway). But with full fuel cells, a cargo rover would have enough range to make it to Hadley. It would take perhaps twenty hours.

Gao isn't sure: They will expect her to try for Hadley. Even if she manages to slip away undetected, it will not take long before the rover is missed. All they will have to do is follow her tracks.

But Xiaoying knows all about cargo rovers; her job when she first arrived at New Prosperity was running supplies to the geology stations in the arc of the Jura Mountains west of the colony. She knows that cargo rovers can fly short distances on thrusters. Not thousands of kilometers like hoppers, no, but enough to hop over boulders and crevasses.

Lightly loaded, a rover can jump nine or ten kilometers. If she jumped the rover a few times, she could surely make it difficult for them to pick up her tracks again.

It is six days since local sunset; out the rover's right window, the Earth, nearly full, lights up Sinus Iridium, the Sea of Rainbows, with blue ghosts. Xiaoying is driving a stolen rover southeast across the desolate plain. Ahead lies Mare Imbrium and freedom.

Dr. Gao's head is hurting, a spiking headache. It could be that she doesn't want to think about how Jian Ling woke up when Xiaoying picked up the baby, how Jian Ling fought with her and tried to stop Xiaoying from taking back her daughter. How Xiaoying scratched Jian Ling's pretty, pretty face and held her in a choke hold until she fell limp on the floor.

Such things happen in slow motion when you remember them, the way Jian Ling fell to the floor in one-sixth g, and the way Xiaoying ran all the way to the East airlocks with the baby in her arms.

No, no, no . . . it wasn't supposed to happen that way, Xiaoying!

No one else saw her, though. Tell her that.

Gao holds her head and rocks. No, no, no. . . .

Okay, tell her that this is what we'll do: We'll keep the rover on the main road until we pass Heraclides Promontory, the southeastern horn of the Jura Mountain chain. There we can leave the road and make a few hops south to virgin soil. Then straight to Hadley across the Imbrium plain.

No, no, no. . . .

But Xiaoying isn't listening.

In a few minutes, the lights of New Prosperity disappear over the horizon, and with them the radio chatter goes silent. Switch off the rover's radio beacon, switch off the running lights and headlights. Switch off everything that would help pursuers find them. They are on their own now.

Xiaoying's daughter is asleep in a plastic cradle beside her. She strokes the smooth surface of the cradle and hums a lullaby.

When the computer alarm wakes her, Xiaoying is dreaming of her old village on Earth in Fujian province, of tending her father's fish ponds and geese. For a moment, she doesn't remember who she is, then her head starts working and she remembers her escape. Beside her, her daughter still sleeps peacefully.

Gao says, you've been asleep for half an hour.

Xiaoying shakes her head to clear it; she hadn't realized how tired she was.

The computer wails again. She side-slips her mind into General Access so she can see what the problem is. Dr. Gao is already there before her.

Through the extended senses of the rover, she sees five other cargo rovers converging to intercept them from the northwest. They are caught between the rovers and the Jura Mountains to the south.

The southern arc of the Juras is barely visible above the horizon from New Prosperity, but now they rise like a wall of black sand dunes.

They are still twenty minutes from Heraclides Promontory. The rovers will reach them in ten.

Xiaoying opens up a topographic of their situation. There is nowhere to hide, nowhere to run. She looks at the mountains to the south. On a hunch, she calls up a ballistic simulation; are the mountains low enough that the rover can jump over them on thrusters?

Gao shakes her head: They will be expecting that and track our trajectory. They will find us again, unless—

Unless what?

Gao takes on the air of a Teacher: We must be unpredictable. We must ask ourselves what they will be thinking now.

Xiaoying turns due south toward the mountains and she thinks. It would be men in those rovers. The revolution has been promising women equality since her grandmother's girlhood. She came to New Prosperity hoping to find that equality.

Ask yourself: what would these men expect a woman in her position to do?

They are probably thinking I'll do something desperate, Xiaoying says. They think I will panic.

Gao inclines her head. So. Let us fulfill the first expectation, but not the second.

If I jump the rover into the mountain highlands to hide, that would look desperate.

And then what?

We could aim for a spot in the highlands on the south slope of the mountains, then, before the other rovers clear the peaks, make a jump in another direction while the mountains shield us from their radar.

Gao smiles.

Here is where we'll aim for. (Point to a spot on the Topographic.) You set up the ballistic simulation.

It will work, but we won't have much fuel left to hop obstacles later in the journey. It will buy us time. Quick, download the simulated trajectory elements into the rover's flight computer. Xiaoying gathers her daughter in her arms and waits for the five-second countdown.

The thrusters kick in and the ground lurches away from her. She feels heavier than she ever remembers being, though she knows it is only a little over one g.

The burn lasts seventeen seconds, then they are in free fall. Xiaoying has forty-seven long seconds to think before the first touchdown.

Her daughter is crying, frightened by the jolts, the noise, and now weightlessness. She comforts her as best she can.

As they near the top of their trajectory, Gao turns to Xiaoying. If we leave some wreckage at our first landing site, that might give us even more time to escape.

The cargo module?

That would make a convincing display.

Xiaoying arms the explosive bolts that hold the empty cargo module slung beneath the backbone of the rover.

She waits tensely until they have dropped behind the radar shadow of the mountains, then blows the explosive bolts to jettison the module. There. A clean separation.

She watches while the rectangular cargo box tumbles away from the rover, and feeds in new trajectory elements for the rover minus the mass of the cargo module.

Twelve seconds to go.

Instead of landing on this hop as she first planned, she will thrust laterally toward the south and then brake to soft land at the base of the mountains.

The south slope of the mountains rushes up to meet them. She is terrified, but also exhilarated. She braces herself.

Thrust! She watches the blur of the cargo module as it impacts behind them. Jagged shards of aluminum and plastic litter the site, which is much more rugged than she would have liked to try landing on.

Gao smiles. The other rovers will have the same problem. It will take an hour, maybe more, before they can investigate the "crash scene" well enough to determine it is just a cargo module, not an entire rover.

Xiaoying braces for the third burn.

Carol Johnson hates meetings, but as civilian Science Coordinator at Hadley Lunar Research Station, she has no choice but to endure them. You can't do good science on the Moon without good support, and for now, like it or not, the UN military hierarchy is that support.

But sometimes, like now, getting information out of the military people is like extracting molars.

"Do we know anything about who they are?"

Lieutenant Colonel Jeffrey Collins straightens the cuff of his shirtsleeve. He is old-line USAF down to the creases in his trousers. "Chinese nationals. My sources suggest one or two of their workers stole a cargo rover from their motor pool. From radio intercepts, we know they want to find them bad."

"Are they defectors?"

"We don't know."

"Can we rescue them?"

"That's a sticky proposition. We can't join a search until the Chinese ask for our assistance. In any case, the Outer Space Treaty of 1968 requires us to return any of their people should we find them."

Lieutenant Desmond Savimbi speaks next. "They had seven rovers conducting search operations for several hours in the South Jura highlands." Carol loves listening to his deep voice, his British accent. His is the only other black face in the room, much darker than her own. "From orbiter imagery, it appeared at first to be a crash site, but apparently they didn't find what they were looking for. No rover. Only bits of a cargo container."

"A decoy crash?"

Desmond nods. "Possibly. The search group seems to think so; they've since moved east into Imbrium."

The rover plows through the dust, blue-gray in the Earthlight. Xiaoying unstraps herself and rocks her daughter, who is hungry again. She just can't seem to nurse her enough these last sixteen hours. All of the bumps and jolts from rough terrain and the short hops they've made to avoid obstacles are taking their toll.

Gao looks on as she sits cross-legged on the floor of the rover; Xiaoying

holds the howling infant to her breast and nurses her. In a few minutes, Xiaoying becomes drowsy. She begins to dream.

She dreams she is Gao, watching and remembering.

If you were Gao, you might wish you could sleep, too, but her head hurts—she hasn't told Xiaoying about the headaches. She hasn't told her she too hears the raging torrent. But someone needs to stay awake. She gingerly takes the baby girl in her own arms.

Gao feels as if a part of herself has gone to sleep. She hums a lullaby to the baby and remembers her own daughter. She would have been twenty-four, now.

Xiaoying's age.

Suppose in Xiaoying's dream it is a warm spring in Beijing. It is 1989—a quarter of a century ago—and everyone in the city is talking about the student protests. See the students from Qinghua University, Gao included, marching in joyful, defiant parades through the city. Big changes are coming to China. She marches beside Han Fengsuo, whom she intends to marry.

She exults at the Goddess of Liberty statue the students have built in Tiananmen Square. The speeches she hears move her, and she convinces Fengsuo they should stay. Fengsuo even gets up and makes a speech himself. She cheers until she is hoarse, claps until her hands are raw.

The old men of the Government don't seem to know what to do about such things; May becomes June and wild rumors sweep through the protesters. Some say troops are coming to kill them all; others say the Army is coming to support the students. After all, are they not the *People's Liberation Army*?

But the old men will have their way. It starts with trucks of soldiers thundering down the streets leading to the square. The soldiers set fire to the barricades of trucks and buses, then advance on the students.

Everyone is yelling and Gao can find no one who knows what to do. She and Fengsuo run. AK-47's crack behind them, and, for the first time, she realizes that the soldiers are firing on the students.

Soldiers with truncheons swing and hit, swing and hit at anyone on the sidewalks and marble bridges leading to the Forbidden City. For a moment, she and Fengsuo crouch behind the stone lions of the Imperial City to catch their breaths. They scramble through the *hutungs*, the narrow alleys that snake through the city. The trees are afire along Changan Avenue, the Avenue of Eternal Peace.

At dawn, the sky is enveloped in smoke. The streets are empty except for the carcasses of smoldering vehicles; soldiers have begun sweeping up the shoes and other debris left in the night of terror.

During the running and hiding, she has lost Fengsuo. She stays with a friend and tries frantically to find what has become of him, but can learn nothing.

After a few weeks, she learns that he is dead, just one among the hundreds of deaths that officially never happened.

She manages to escape notice of the police. In a few months, when travel restrictions to the country are lifted, she makes her way back home to her old village. By that time, she knows that she is carrying Fengsuo's child. She is given no choice about aborting the baby; she does not resist.

Gao's eyes tear up. She rubs the tears away, but each time she looks down at the baby girl in her arms, the tears come again. Her head throbs. She stares out at the passing desolation, a match to her own. The empty pain spikes and Gao cries out.

Xiaoying pops awake. The dream is over; she still holds her child. The nav-

comp shows they are just east of the medium-size crater Timocharis. The rover is stopped. Why?

Gao points out the window. They have reached the edge of a scarp, far too steep for the rover to negotiate.

It isn't much of a drop, Xiaoying says. Only about ten meters.

It might as well be a hundred meters. They don't have any thruster fuel left. They'll have to go around.

But as Xiaoying looks over the chart, she realizes that the scarp will take them a hundred kilometers further south than they want, and the fuel cells are getting low.

She runs the simulation several times, but can find no way out.

Gao is rocking again: We must call for help.

"Lieutenant Savimbi?" Carol waves. She is near the rover airlocks loading supplies for an overland site survey. "I could use some help with my survey gear. Could I trouble you for a minute?"

"Yes, of course. How may I be of assistance?"

"It's Rover three," she says. She ducks into the umbilical tunnel without looking to see if Desmond follows her.

Once both are in the cab of the rover, Carol seals the hatch behind them.

"Now, Desmond," she says as she pulls his arms around her waist. "Are you going to tell me what's up, or do I have to get rough on you?" She nips at his ear and rubs her cheek against his chin. In a station of only forty men and women, privacy is impossible to sustain; it has been days since she and Desmond have had the opportunity to be alone together. She hugs him close and kisses his neck.

Desmond returns her kisses with equal urgency. After a few minutes, though, he pulls away.

"There's something you should know," he says. He strokes the line of her jaw with the back of his hand. "It seems a child was born in New Prosperity in the last month." He holds up his hand. "Don't even think of asking me how I know."

"So the rumors are true, then. And you think the mother and her baby might be on board that rover?"

"An educated guess."

"Guess, my ass. You *know*, don't you?"

Desmond says nothing. Carol looks in his eyes, but is not sure what she sees.

She disentangles herself from him.

She sits back on the arm rest of the rover's piloting couch. "Not mounting a rescue was one thing when all we were dealing with was a defector. I don't happen to agree with the policy, but let's leave that as it is. But when there's a baby involved—" She waves her hands. "I can't justify playing these political games. A mother is out there, running for her life like Eliza on the ice—"

"Eliza?"

"It's from a book. *Uncle Tom's Cabin*," she says impatiently. "The point is, we've got to help them."

"I'm under specific orders *not* to help them."

Carol crosses her arms over her chest. "If you let that order overrule your conscience, Desmond Savimbi, then I don't know why."

Desmond doesn't respond directly. He turns, and for a heart-thumping moment, Carol thinks he might actually leave.

Instead, he looks down the length of the aft compartment of the rover. "So, what equipment did you need my help with?" he asks, as if nothing has just passed between them.

Carol presses her lips tightly together. "Nothing. I'm all set to go."

Desmond walks down the length of the cargo and equipment racks. "I should say it doesn't look like you've loaded nearly enough supplies for the trip."

Carol cocks her head. "Sure I have. It's just a run north up to Autolycus. Kimberley and I have made the trip a couple times. It only takes three hours each way."

Desmond turns back toward her. "Autolycus?" He frowns. "Sorry, I was under the impression you were going to site the next observatory near Timocharis."

Timocharis is four hundred kilometers away, three times the distance to Autolycus, and west, not north. "It'd take us eight hours just to get there—"

"Probably longer. The West Road doesn't run any farther west than the core sample at Beer Crater." He faces her. "If you were going to Timocharis, you would naturally need more provisions. But since you're not . . ." He shrugs. "My mistake." Desmond moves toward the hatch to the docking tube.

"Wait," Carol says and takes his arm. "Enough games. Tell me what you know."

"I can't."

"But you do know something," she says. "Something about Timocharis crater." She stops. "That's it, isn't it? That's where they are. You must have gotten a distress call."

Desmond makes no reply.

Carol thinks of another approach. "Maybe you're right. Autolycus is pretty close to the north road. We would have less problems from rover traffic vibration at Timocharis. Not much rover traffic out that far west."

"Not much."

"I'd need some help scouting the route from Beer to Timocharis." She smiles and draws him near. "Know anyone available?"

"I thought you were taking Rogers."

She shrugs. "He gets motion-sick off the main roads."

"Pity."

The message had been short, merely their coordinates and situation. They have waited over ten hours, but still no sign of the Americans. Xiaoying has just about given up hope when she sees the American rover crest the east horizon.

She and Gao have already determined that she can use the rover's winch to lower themselves down the scarp. They have rigged a sling with a couple of diapers with which Xiaoying can suspend her baby between her breasts inside her suit. It is snug, but the baby breathes comfortably. Xiaoying will ride the sling down first, then Gao will follow.

They are preparing to do just that when the computer alarm goes off.

Xiaoying flicks into General Access and sees rovers from New Prosperity closing in from the west. Five minutes and they will be here.

Gao looks worried and says, "You go down and I'll send the rover south on automatic. As long as they follow the rover, maybe they won't see us below."

Gao seals Xiaoying's suit and urges her out into the sling. The cable thrums under her gloves and she begins her descent. She bumps against the

scarp wall a few times, but no damage is done. She can see the Americans just fifty meters away; a talus field is between her and them.

Boulders ranging from grapefruit size to rover size partially block the way; she looks up to see if Dr. Gao is coming, but to her surprise the rover is moving before the winch is even hauled up all the way. "Gao!" she cries out. But Gao does not reply. The rover is gone.

Tears sting her eyes; she isn't sure she can make it through the boulders without help. So you help her by becoming her, to show her the way.

You move cautiously, deathly afraid of falling on your chest and crushing the baby. Your suit smells of sweat and neoprene and sour milk. You see two pressure-suited figures emerge from the American rover. They are coming toward you.

Carol drives while Desmond examines their Eliza and her baby. Finding the baby swaddled inside Xiaoying's pressure suit was nothing short of astonishing. Desmond's Chinese is worse than Xiaoying's English, but he is at least able to determine her name and that both mother and child are okay. Xiaoying looks tired, and is older than he'd expected.

She is tearful and excited, but everything seems fine. After his cursory examination, Desmond takes over driving until they are beyond the horizon.

Lieutenant Colonel Jeffrey Collins is waiting for them at the airlock. He takes Carol and Desmond aside on the way to the infirmary.

"We've received an official protest from the Chinese government. Nothing we didn't expect. But there's a problem. They say that the woman you picked up is a Dr. Gao Xiaoying. They say she's mentally disturbed, that she assaulted another woman, then kidnapped her baby right out of the crib. I need you to convince me why I shouldn't believe Governor Qi's story."

Desmond hesitates. "We can do a DNA test and we'll know for sure."

"Do it."

An hour later, the DNA test results come back.

The baby isn't hers.

Further consultation with the representatives just arrived via hopper from New Prosperity reveals that no Liu Xiaoying exists. A Dr. Gao Xiaoying, however, had recently given birth, but her child had only lived thirteen hours. Gao suffered a breakdown and was supposed to have been sent back to Earth for treatment.

"Who did we pick up? Liu Xiaoying or this Dr. Gao?" Carol asked. "I don't know what to believe."

Desmond shakes his head. "It looks like there never *was* a Liu Xiaoying. She was a construct that Gao made up to protect herself when her baby died. Perhaps much longer ago than that. I've never seen a case quite like this one."

"And the baby?"

"Will have to go back to New Prosperity. Her mother is waiting."

Carol watches you, Gao Xiaoying, through the infirmary window. You are so dissociated that you don't notice when they take the baby from you. You just keep calling out a name, your name: "Gao? . . . Gao?"

The truth is, the thing you feared your whole life was not a thing to fear at all. Your baby is with you, the palpable spirit of her is *always* with you. She never left, though you hid her away. The truth is, you are the clever girl, and she cannot be taken away again. You sit rocking on the bed and hugging empty air to your breasts. You hum a song from your youth, a song of freedom and love. ○



THE ARCHANGEL'S FAREWELL TO THOSE LEAVING FOR EARTH

You souls who go to co-create the World
with God are heroes here, where death's a dream,
you perfect beings waiting to be hurled
into the boiling cauldron of What Seems

where all Perfection seems to melt and change,
where brave abandon turns to weary dread,
where what was here familiar shall seem strange
and you shall not remember what we said

when you surrendered, for the chance to know
what we who stay can never fully learn,
this bliss for bliss that's based on knowing woe,
this easy joy for joy that you must earn.

Remember us who here in bliss remain,
and envy you the glory of your pain.

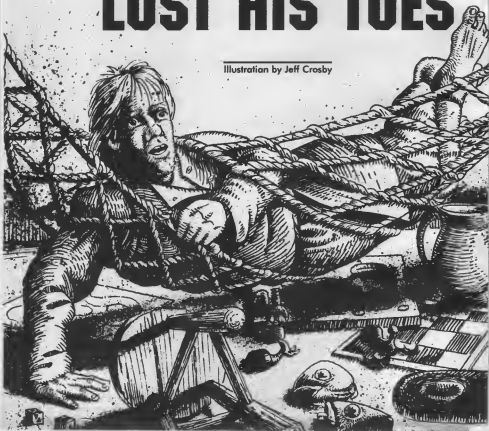
—William John Watkins

Gregory Frost

Gregory Frost, a website designer and technical writer, is the author of a bi-monthly column on Macintosh software that appears on the Internet. In addition, he has been a technical researcher on two episodes of the Learning Channel's *Science Frontiers*. Mr. Frost is currently working on a novel set in the same fantastic Shadowbridge universe as the one in which we discover . . .

HOW MEERSH THE BEDEVILER LOST HIS TOES

Illustration by Jeff Crosby





You know this story already. You know it from great Bardsham's performances, which, like so many of his skillful shadow works, portray Meersh's adventures to resounding acclaim. When Bardsham controls the rods, he is Meersh.

There are as well the paintings collected and permanently exhibited in Colemaigne, and from these—if you didn't know it already—you would deduce that the events happened long ago, in the earliest of times before all the gifts of Edgeworld suffused, altered, reinvented every element of life in Shadowbridge. It all took place on a Span called Valdemir that has long since disappeared, collapsed into the ocean and been swallowed up, or transformed by the Edgeworld into another place.

Meersh the Bedeviler had many adventures. Not all turn out for the best.

One morning Meersh's neighbor woke him. He slept in a net hammock that snared each of his dreams and kept him from rolling loose while embrangled in them. His dreams were as real for him as being awake is for most of us.

The door to his house shook and rattled as if a storm had arrived outside. Meersh sat up and glanced about.

At first he had no idea what had awakened him. He smacked his lips because he had just dreamed a great feast that he'd managed to steal from someone wealthy—a governor of Valdemir he thought it was. He could still taste the spices in the stew and the lemons in the pie. If someone hadn't pounded again on his door, he might have plunged back into the dream; dived into that vat of stew. He could do that.

Instead, he rolled out of the hammock and tiptoed to the door. There was a small window filled with multicolored, leaded diamond panes beside it, and he sneaked a glance at his visitor.

His neighbor's name was Sun-through-Clouds. It was she who had banged at his door. Even through the distortion in the quarrels he recognized her shape.

Sun-Through-Clouds was a beautiful woman, black-haired and golden-eyed, just as Bardsham's puppet represents. A great silver stripe ran over the top of her head and through the fall of her long hair. She'd come to Valdemir from one of the mountainous islands on the far side of the world, where trees grew as thick as sargasso and the people hacked them and roped them together into wooden lodges—at least, so she'd described it to him. It was too remarkable a story to believe, but Meersh asked her to tell it to him now and again so he could sit and inhale her fragrance. He could have listened a million times if it meant he could close his eyes and breathe beside Sun-Through-Clouds. She seemed to have no idea of his devotion, which on the face of it makes her naïve or else cunning. But perhaps her ignorance of Meersh's affections was due to her preoccupation with her children—two fitful demons who thwarted him every time he came near to fondling their mother.

Seeing no children but only his neighbor in all her beauty, Meersh willingly opened the door. Sun-Through-Clouds' smile drank him up. He basked in it, joyful in its radiance.

"Meersh," she said in a voice that chimed at least three perfect notes, "I'm so very glad you're home today. Have I wakened you?"

"Oh, no, sweet cousin," he said, yawning, "not at all." This in spite of his shaggy hair pushed up flat in a wedge, the result of his sleeping on it, and the fact that he was dressed only in a nightshirt that his alerted penis even now prodded toward her in its eagerness.

Sun-Through-Clouds nodded as if to say she was satisfied with his answer; in doing so she looked at the protrusion in his nightshirt, but did not react at all. "I have a difficult favor to ask," she said. "You know I would never ask anything frivolously." She met his eyes. Her eyelids fluttered like sails. Like the wings of doves.

"Anything!" he cried.

For a moment she hesitated as if weighing his devotion. "I must travel the spans for a day or more and can't take little Vek and Jurina with me. I have to travel fast, that is. And peripatetic." She was always using words like "peripatetic"—words out of some vast lexicon; especially plosives. She loved plosives. "With my wares, to make some money. And they both adore you so. And when I told them—"

"You wish for me to look after your *children*?" He was unable to disguise his consternation. It was as if she had asked him to drive hot spikes into his eyes. It was as if she desired to make candles of his fingers. It was as if she'd demanded he become a tax collector. He would have agreed to all that more readily.

"Oh, but they're *exquisite* children. Really very good. After all, they're mine. And they adore you so. Don't you, my dears?"

In unison, the two miscreants stepped out from behind their mother's ample hips. They had the same face, Sun-Through-Clouds' children: oval eyes as dark as coffee; and rings circling their eyes like some deeper pigment in their tanned skin, which had led Meersh to the suspicion that their father was a nature being, maybe a Raki. She depicted him as huge and dark and so full of malice that he'd driven her to sail across the world and take up residence here on this little circular close, where Meersh had the good fortune to dwell. Sun-Through-Clouds described her own people in something other than human terms, too; although never had the specifics of their natures been—as she might have said—pellucid. Their suggested alienness confounded Meersh: She seemed the summation of round, soft, perfect flesh. Why had someone so luscious *ever* had anything to do with such a malevolent creature as a Raki? She deserved better. She deserved Meersh.

She said, "They'll do whatever you tell them."

Meersh eyed them doubtfully.

"Won't you, my doves?" she asked them.

The children exchanged a glance and then, smiling pure innocence, nodded.

Oh, yes, thought Meersh, they'll do what I tell them.

But he had no real choice. Whatever else he was, Meersh was a creature of his appetites, and all of them were focused upon Sun-Through-Clouds. "All right, bring them in if you must—I mean, my dearest neighbor. But for *how* long are you gone?"

"Ah, possibly three days if the market is good," Sun-Through-Clouds wove baskets and chairs. She had woven the dream-catching hammock in which he slept. Her strong hands were the only rough part of her. He was certain of it.

She said, "Here," and handed him a low ceramic jar.

"What's this?" he asked. It was covered by a paper wrapper stuck down around the mouth of the jar.

"It's their physic. Give them one good spoonful each night before they slumber. It's critical they have that much. That much and *no more*."

"Physic?" He eyed them eyeing each other. "They won't be soiling themselves, will they? Curatives always affect *me* that way—that is, I have to be

very careful. That is to say . . . I must tell you, they don't look at all sickly to me."

"No, and because I give them this. Otherwise, they could never prevail in this pelagic place so unlike their natural home, so woody and lush."

"Lush," he repeated, with a meaning all his own.

"You mustn't forget. And feed them their one meal a day promptly then. Take good care of them, my dear, and when I get back . . ." She let the unspecified promise linger.

"One meal and a spoonful. Before they sleep," he said. "Yes," he said, "I promise." He could hardly swallow.

"You are so kind." She took a step away, but hesitated on the threshold and turned back to him. "Dearest, sweet, pliable Meersh." She leaned forward and kissed him. He hardly heard her words. He was looking down the front of her bodice and thinking of pears.

"She is gorgeous," said his penis.

"Beautiful, yes," Meersh answered vacantly.

"I think before she leaves you should have her," the penis urged.

"Have her?"

"Have her *in*. She gets thirsty like anyone. A few cups of purple wine, and who knows what might happen? What you might see, eh?"

Meersh's voice creaked with desire. Tongue-tied. He couldn't even hush his lusting member.

Sun-Through-Clouds pretended not to hear. She offered him again her promissory smile, and he hung upon it as she departed. He watched her supple silhouette shift back and forth against a view of the main avenue of Valdemir and the green distance of the sea.

When even the afterimage of her had faded from his eyes, he withdrew. The gulls on the eaves watched him charily.

He turned. The paper-covered ceramic pot was still in his hand.

The children had taken seats around his *el-quirkat* board. It sat on a low stone table, its inlaid nacreous strips gleaming. The two children were attempting to pry one of the strips out. He gasped.

"Vek," he yelled. "Jurina! Stop that, you little fiends."

How would he deal with them? He glanced around the room, at the huge pillows, the tables stacked with old chipped dishes and a cold coffee urn; at the disordered piles of antique and arcane games he collected and sometimes sold; at the burgundy tapestry curtains on brass rings fluttering lazily behind them. The scene depicted was of an excited crowd clustered upon one of the hexagonal tabulae beside a span such as Valdemir while a mountainous glowing gift from the Edgeworld was bursting into being there.

The children ran to other parts of the room. Vek picked up a pachinko machine and shook it so that the loose balls inside rolled about, mad as hornets. "What's this? What's it do?"

Alas, he couldn't say, because the knowledge of its method had never been found anywhere.

Jurina had unrolled a Hamamatsu kite, throwing up a cloud of dust. "What's this?" she cried.

Vek shoved aside an oil lamp, carelessly spilling the oil, and wrestled loose a boar's bristle dart board. "This, what's this?" The darts stuck loosely in it fell out, clattering to the ground.

"All right!" Meersh shouted. "Enough! Put my things down. You want a game, I tell you what we'll do. We'll play a card game I know. It's called

'Lawyers' Poker.' Heard of that one? I learned it in a tavern, and it's very clever. All the cards refer to real creatures and places and concepts of day-to-day existence in Edgeworld. Very *funny* pictures. The original deck was found on a *hex*—that's what they say. You come sit here and I'll just get them."

He set down the pot and went behind the tapestry, where his more exotic collection resided. He found the cards quickly—the last thing he wanted was to leave the two demons unattended. As he crossed the room, he said, "This game has an interesting history. The information for playing was bestowed upon a king who happened to be standing on the tabula when the original deck appeared. Oh, he wasn't a *king* at that point. The knowledge to govern accompanied this game, too. Timing is everything in life. I'm sure your mother has said." He contemplated the pot of medicine he was supposed to give them.

"What's Edgeworld, then?" asked Vek. "Where is it?"

Meersh sat cross-legged across from them. He began to shuffle the card deck as he spoke. "Well, *where* it is remains the mystery. No one sees it, you see. Its existence is hypothetical—which means—"

"It means nobody knows," Jurina interjected. "Mother uses 'hypothetical' all the time."

"Yes, she would," he muttered, "it has a *p* in it." He dealt the cards, seven to each of them. "Anyway, all the things that appear are from some other place that's nothing like our Shadowbridge. A different world."

"You're making this all up," said Vek.

Meersh glowered. "What if I am? You'll certainly never know. You don't even know how this game is played."

"You haven't told us yet."

He gave up trying to score any sort of point against the child. Either Vek was beyond insipid or else posing as a fool just to goad him. "Well, I will explain it. As we play."

The game went well for at least three minutes. He had them lay down their cards and instructed them on what they needed in order to move, what to look for when they drew from the deck, and how two players could work as a team in a four-handed match. The children questioned every detail of every rule. They teamed up against him almost immediately.

When he explained that he could block the construction of their apartment complex by playing both a lawyer card and a writ card (secretly one of his favorites), they threw their hands down and pouted. "You're cheating," accused Vek.

"I'm *teaching* you, you—"

"What's a writ, then? Ha-ha, he doesn't know." Jurina joined in. They sang "ha-ha" together.

Peevishly, Meersh replied, "I'll tell you what it is. It's the past tense of 'write.' It's something that's already been writ, so it was prepared in advance, and that's how I can use it against you. There, satisfied? Look, Jurina has a Supreme Court ruling card that cancels it out. Why don't you play that and we can go on." Only grudgingly did they take up their cards again and continue.

He had to work much harder to lose than he liked.

By the end of the game they could hardly sit still. They'd lost all interest and expressed no desire to play a real hand of Lawyers' Poker—a pity, as he itched to sue them for damages. The more pressing problem was how he was going to rein them in for two days and still get any serious sleeping done.

Meersh liked to sleep more than anything else in the world, except for eating. He had a great many things to do in his sleep, projects he'd begun—like the dream-mapping of Shadowbridge. He had diagrammed the unwinding Spans, year upon year, in his sleep. The map was accessible only in his dreams. And there was that stolen feast to get back to—the wienerschnitzel wouldn't stay warm forever. He couldn't imagine so much as catnapping in the presence of the two ring-eyed demons.

Rather than let them dictate what happened next, he set the cards aside and said, "I'm feeling hungry, what say we have something to eat."

"What do you have for us?"

Meersh picked up the ceramic pot.

The children backed away as one. "Get it away," they said. "It's horrid."

"I'm required to give it to you and that's what I'll do. Let's not have any fighting."

"We're not fighting. We're running away."

"And where would you run to?"

"Back home," they said.

"Across the close? Your mother left you with me and went away."

"Back home to W——." The word splashed over him, more like a sudden chill upon the air than anything spoken. Meersh listened to his memory but the word had eluded him, eel-like. It writhed between syllables, wriggled through consonants and vowels. The very absence of its name made him set down the pot upon the table. It was nowhere on his dream map. "She's abandoning us and never coming back!" wailed Jurina. "She tricked you into taking us!"

He knew this wasn't true, despite which the words troubled him. He wanted to get on to something else.

"Look, we'll eat and you'll have your medicine afterward. I have some hard cheese—"

"You do?" they exclaimed. "We never get cheese. It's so expensive."

He thought to himself, "Never get cheese, that's ridiculous. One can hardly endure without it. It's cheese or fish or seaweed in this life." The thought made him crave some fish, but he would have had to go out for it and that was out of the question. Besides, his frying pan had cracked and he had nothing to cook in.

"Yes," he muttered slyly, "cheese first."

He brought out a wheel of bright yellow cheese and set it on the playing board. With a small knife he removed a layer of mold that coated the top of it and then cut three triangular slices, the largest for himself.

"There now," he said, handing the slices to the two of them. He set down the knife and picked up his own slice.

Meersh opened his mouth to take his first bite. The children were staring at him, empty-handed. "Where's your cheese I gave you?" he asked.

"Gone. We ate it. It was so good. Can we have some more?"

"Certainly." He set down his slice and cut two more, larger than the first but still not as big as his own. "Now, this time don't eat so fast, or you'll get sick. There's no fun in it if you don't savor the food."

They held their slices close under their noses and sniffed, nodding to one another. He watched them surreptitiously as he reached for his own slice again; but there was a moment when he had to look away, and in that moment the food he'd given them vanished.

"Oh, it's good. Give us more, *please!*" they cried. He huffed, but cut them

two more slices, bigger than his. A third of the wheel was gone now, but he wanted to make sure they couldn't hide these slices. Where the cheese was going he couldn't guess.

He grabbed his own as he handed out the first one, and held it before him as he handed out the second. His eyes shifted from child to child. Jurina and her brother sniffed the cheese again, grinned to each other, then faced him, not eating.

Waiting.

Watching, he took a large bite of his slice of cheese. He chewed it, and oh it was delectable, better than he remembered. His eyes closed with pleasure. He really couldn't help himself. But when he remembered himself and opened his eyes, the children's cheese was gone, and with it went the pleasure of his own.

"More," they insisted, "give us some more."

He set down his slice. "Nope. That's all for now or there won't be any left for later, and you do want more later, don't you? I'm sure you do." They couldn't have eaten it, he thought, not that quickly. And yet . . . where else could it be?

"We want it all now!" yelled Vek.

Meersh uncrossed his legs and took hold of the pot. "Everybody wants it all now. What you're going to have now is *this*."

"It's not bedtime."

"Yes, it is."

"It isn't even dark!"

"One meal, a dose of this and then sleep. That was my promise. Don't make me lie to your mother."

"That's not fair," they complained. However, when he pulled the paper up, they remained sitting where they were, their gazes firmly on the pot. Inside it was a thick greenish fluid the like of which he had never seen. It had a sheen to it much like the nacreous embellishment in the *el-quirkat* table.

Meersh dipped his cheese knife into it and squinted as the gooey mass hung from the blade. There seemed to be tiny granules embedded in the stuff. It might have been made from seaweed.

He scooped it again and held it out to Jurina. Although she had protested violently before, she leaned forward and stoically closed her mouth around the blade. She drew back and the blade was clean. He repeated the procedure for Vek, who did as his sister had, smacking his lips afterward. Meersh noticed for the first time how odd his teeth were—stubby and sharp. Vek made a strange, dreamy face.

"You look more like an animal than ever," Meersh thought.

Jurina looked up at the ceiling and began to tilt, back and back and back, slowly, steadily, until her head rested on the floor. Vek placed his head on her breast, and both closed their eyes and breathed in unison. The rings around their eyes seemed lighter than before.

"It must mean they're healthier." Meersh set the pot on the table and slid over beside them. "Jurina," he said. "Vek." Neither child responded. "Well, this is perfect. I can do as I like now." He eyed the pot. He dipped his finger into it. The jelly was oily to the touch. Hesitantly he stuck his finger in his mouth. His face pinched in immediate reaction to the bitter flavor. He spat in every direction.

"Idiot," muttered his penis. It loved to make fun of him.

All he wanted in the whole world was to get rid of that taste. He jumped up

and ran to his hidden cache of fermented juice, unstopped the bottle and took a great swig. Over the bottle he paused to consider the snoozing children.

"The last thing in the world I could do after this is sleep. The flavor won't go away!" He took another long drink.

Eventually he exchanged drinking to mask the awful flavor for drinking as its own pleasure. He began to laugh: He was brilliant. He was a genius. He was soused. Eventually, in wordless bliss, he passed from consciousness.

Meersh slumbered six hours. Because he was drunk, it was an aimless, directionless sleep. When he next awoke the children were still asleep. He lounged at the game table and ate his cheese, taking his time now. Then he made a search through the children's clothing, but found no trace of the cheese they'd hidden. They had to have eaten it somehow. He did find a set of bronze knucklebones on Vek that the boy must have swiped while he was picking up everything in the place. Meersh had no sympathy for them after that. He waited them out.

When they began to stir, he dipped his finger quickly into the pot and then stuck another dollop of green slime inside their mouths. They smacked their lips without ever opening their eyes and fell back to the floor.

Six hours—now he knew how long they would sleep. He really could go off and leave them without worrying. All the fermented juice was gone, and he wanted more. He prospected through heaps and layers of possessions until he found something with which he could bear to part—a collection of mah-jongg tiles. He set off to barter for supplies.

He was gone four hours, and returned reeling in triumph and drink. He'd traded the ivory tiles for food and juice, sampled the vintner's latest batch, and even acquired a nice new pan for cooking. He set down his goods, then stumbled about in the dark of the house until he located his lamp. After feeling his way across the house without stepping on anyone, he lit a taper out of the belly of his oven and ignited the lamp.

The children were still unconscious in a heap in the middle of the room. And Meersh thought to himself, if one dollop was good for six hours then why not another to keep them out all night? Then he could get in some really terrific sleeping. His penis, which often had a very good time in dreams, roused a little. "Why not keep them asleep till their mother gets back?" it suggested.

Meersh dipped his finger in the jar and rubbed another glob across their teeth. Jurina moaned deeply but didn't stir. Vek slept like the stone idol of an abandoned faith.

Satisfied that they were taken care of, he clambered over to his hammock again. He tugged his nightshirt to his knees, curled up in the netting and went to sleep.

The first thing he did was go back to his feast. But someone had found it by now and eaten everything. Hardly a scrap remained for him. Disappointed, he went looking for another.

He inserted himself into a world where people traveled through the air inside enormous ribbed fish, and he rode along in their midst. They held masks on sticks in front of their faces when they spoke, which made it easy for him to disguise himself among them. Their voices were all snobbily nasal. They tittered, and said such things as: "The life one leads is rarely one's real life" and "It's my opinion that madam's corset is too constricting." He suspected they were Edgeworld beings, the dreamers whose dreams, according to all

the philosophers, associatively created Shadowbridge. They did have a marvelous banquet laid out, and Meersh filled himself with pickled oysters and sparkling wine whilst peering through glass portholes in the bottom of the fish. Beneath wispy clouds, bridges unwound across the globe in nautiloid spirals. For one glorious moment, as the clouds parted, he thought he saw the point of origin, the great *hex* at the convergence of the lines—a place of myth that no one had ever located. He ought to have been mapping instead of stuffing his face; but he was awakened before he could start.

His house was still dark, and for a final moment he hovered airborne in the flying fish. Then someone went clomping around overhead, and he came to his senses. Someone moving across the second floor. It would be his neighbor, Sacatepequez, who woke each day just before dawn to begin pacing the floor in wait for the "dry season." There was no such season here on Valdemir and the nature of the obsessive walking suggested he'd been cursed by someone. It must have been the sound of those enormous leaden feet that had awakened Meersh. He turned on his side to go back to sleep.

Across the room, something slapped the floor impatiently.

The children. Meersh sat up. How many hours had he been flying and feasting? He stared into the darkness but could make out nothing, not even the vaguest shape. He couldn't remember where he'd left the oil lamp; couldn't remember blowing it out. He felt around on the floor beneath the hammock for a flint and a wick.

He struck the stone until the sparks caught the waxed wick; then, as it flared, glanced across the room.

What he saw was quite impossible. Startled, he huffed and the wick blew out.

But he had seen, and an image too grotesque to be real remained with him in the sudden blackness.

Furiously he sparked the stone to light the wick. Then with one eye to the scene in the middle of the room, he located the oil lamp and touched the wick to it. Holding it aloft, he slung his legs over the side of the hammock and stood.

On the floor lay the rumpled clothing of the two children, but the children were gone. They had vanished. Poking out of the necks of their shirts were the heads of two large fish. The smaller one, in Vek's clothes, fixed its glassy eye upon him and slapped its tail weakly one final time as it died.

Meersh thought, "This must be a trick. They've put these fish here to punish me." He called out, "Jurina, Vek, this isn't funny at all!" But even as he spoke he spied the greenish jelly dripping from their inhuman, toothless mouths and he knew these were the children of Sun-Through-Clouds.

He had turned them into fish.

He sank down, stunned, staring at the pot, wondering if they'd been fish all along. But the fish had been in his dream, not outside it. Then he understood: He had tasted the awful jelly and dreamt of fish; he had overfed them the same and they had become fish. Once a day—Sun-Through-Clouds had told him to feed it to them once a day. He hadn't listened, because he wanted her and did not want her children.

What could he do now? Tell her that her children had died? He considered it seriously for at least four seconds. Then he asked himself, "What bodies can I show her?" He could say they'd been kidnapped. But she would see through it, through him. He was not a good liar. His cousins always caught him out whenever he lied, and wasn't everyone his cousin? She would know.

His best hope lay in flight. That was what the dream had augured: People in *flying* fish—yes, there could be no doubt of it.

"This is all your fault, you," he said into his nightshirt. "Wake up now, and see what you've done."

"Don't blame me," countered the penis, stirring. "However you dress it up, we were both of the same mind. If you'd listened to me in the first place, at least you could have been amply rewarded. I told you to plunge in when you had her."

"Is lust all you can think about?"

"Yes!" Penis happily replied.

"Fine, please yourself. You always do. But tell me how to get out of this."

Penis said nothing.

"Come on, what am I going to do?"

No reply ensued. Meersh set down the lamp and ran outside. The sky was just lightening, but all the houses in the close were dark. He turned and ran down the lane, out onto the main avenue. It was nearly deserted in both directions. A few covered carts being hauled along were all that moved. He raced to the shop of Beedlo, the vintner. Huge swollen bags of wine hung in the window like the carcasses of strange animals. He hammered on the door. "Beedlo! wake up. Beedlo, help me!"

"What, are you hurt?" came the cry from the second floor.

He stepped back and stared up at a round, balding face.

"Meersh, is that you? What are you doing at this time of morning in your bed clothes? You can't have drunk up everything already."

"No, no. It's an emergency. I've killed them! What do I do?"

"Killed whom?"

"The chil—the fish. I've got two dead fish in my house! What do I do?"

Beedlo replied, "Why don't you fry them up? A little butter's my favorite. And that white wine I sold you is excellent for a little sauce."

"Fry them?"

"You've got a new pan, haven't you?"

Meersh slapped himself. "I've got a *nice* new pan, yes! Yes, that's it. That's what I'll do. You hear that, you stupid penis? Ha!" He bounded off Beedlo's stoop and ran straight for his lane.

"Mad as a mayfly," Beedlo muttered, and closed his shutters.

Back inside his house, Meersh took the fish out of their clothes. He gathered up the clothing and threw it behind the tapestry. He placed them in the new frying pan on the black stone stove and considered them. Just two dead fish in a world of fish. That's all they were. Well, he thought, it wasn't as if he'd wanted to kill them.

He gutted and skinned them and tossed the heads aside where he didn't have to look at them. Then as Beedlo had suggested, he mixed butter and wine and began to fry the filets. The fish smelled better even than the meal he'd consumed in his sleep. Once they were cooking, he pulled off his night-shirt and dressed. After breakfast, he would take the remains out and throw them in the ocean.

The fish sizzled and Meersh sang a wordless song in anticipation, and between them made enough noise that he didn't hear the knock on his door.

The room suddenly grew brighter. Meersh turned from his cooking to see a figure silhouetted in the open doorway. There could be no mistaking her ripe form. Sun-Through-Clouds had returned early.

"Oh, you lying children!" he cursed beneath his breath. "You evil penis!"

Aloud he exclaimed, "Why, Sun-Through-Clouds, I didn't expect you for days!"

She smiled at him—the smile that had ignited his desire on many occasions—but which faltered now as her eyes sought her children in the depths of the large room. She reached the low table and stared down at the cards and the open pot.

Meersh swallowed.

He watched in helpless horror as her hands lifted the pot. She peered into it in bewilderment, and from it to Meersh and then back again. He knew what she was seeing, what thoughts would be tearing through her brain at this very moment.

He blurted out, "I have to tell you, your children ran off. I was hoping they'd only gone somewhere to play but alas I fear now it's me—they've run away from me. I would happily help you look for them. Oh, yes, *that* stuff. You know, I tried it myself, it's not really very edible, plus I'm afraid I spilt some on the—"

Her look silenced him as severely as a muzzle. She set the pot back on the table.

He wanted desperately to turn his back on her as though he had no reason to fear her. It might have gone a long way toward reassuring her; but he couldn't. Despite her voluptuous beauty, what he saw in her eyes warned that something ghastly hid within. With one hand, a simple movement, she shoved him aside as forcefully as if she'd struck him. He skittered into a stool and tumbled headfirst into his hammock. It spun, wrapping him up like a tuna.

Sun-Through-Clouds saw the severed heads of the fish. She cried into the pan, "My children, my children!" She tried to touch the lightly browned bodies but could not. She swung about. "You did this. You did this to me!"

Meersh fought his way free of the hammock. The anger spreading from her heart was changing her already. She seemed to grow larger and darker, as if absorbing the light in the room. Her eyes became steel, and her body sharpened and molded into parts both flesh and metal. In places her skin parted, revealing black iron like the stove behind her. Rivets popped out along her forehead and her jaws shifted from side to side with a painful, grating squeal. Meersh knew all about shape-shifters, especially the ones who transformed in anger. They were the most dangerous.

He tumbled from the hammock and bolted out the door and down the narrow lane. He skittered into the main thoroughfare, narrowly missing a scrimshaw-hawker's cart set up at the corner. He fell on the stones, sprang up and ran. People on their knees scrubbing their stoops stared at him as he ran past. Fishmongers glanced up from where they knelt, pouring water onto the stones where they'd gutted the morning's catch. Fish blood was a libation spilt across his path—a terrible, terrible omen.

He dodged around baskets of fish, of fruit, strips of seaweed hung out to dry, a jeweler's glittering cart. To his left, the masts of fishing boats clustered motionless above the ocean. He never stopped, never slowed. Too close behind him he heard shrieks from the same people he'd passed. He didn't have to look back, nor did he wish to for fear the sight of Sun-Through-Clouds completely transformed would ground him to the spot.

If he'd had an inkling how to swim, he might have leapt the railing into the sea. He cursed himself for the life he'd wasted, rejecting knowledge and skill

in pursuit of base desires of the moment. It was true, completely true, and if he could only elude this monster and relocate to some other span of the eternal bridge, why, he would definitely change his ways. Become a priest. Devote his life to charitable duties. Become the eyes for someone blind or work to feed starving children—no, no, bad idea. No children, he should *never* be allowed near children. He should go on a pilgrimage instead. *Soon*.

On his right he passed a five-story apartment building with shops on the ground floor. A turret ran up the corner. Higher towers prodded the sky above the apartments, with pennants hanging, waiting for the winds. He ran past alleys and lanes, and looked down every one for some idea of an escape. He had to get off this empty thoroughfare before she caught him.

With no more plan than that, Meersh turned down the next lane he saw, then into other, smaller offshoots—dodging blindly through a section of the span full of treacherous alleys and subversive streets. He wove in and out, hoping that such a maze might save him. Even he didn't know where he was.

He dodged around sacks of milled grain and kegs of wine waiting to be hauled in. Any other time the smells would have beguiled him.

He turned mistakenly into a stinking alley that ended in a fence. He had to throw three crates up to dive over it. His tunic caught on the rough poles and tore. He landed hard on dungy straw, amidst a flock of goats that whickered and neighed. They sprang aside, but some came back and nudged him in friendly fashion. One started to chew on his torn tunic. He shoved them all aside, waiting and listening. Hoping. Then he heard the whuffling of something rushing down the alley. Guttural, grating noises behind the fence.

A hand clutched the top of the fence. It was black and shiny, spiked at every joint, and as big as his face. Smoke boiled up behind it. A colossal blackened skull with smoldering eyes peered down into the pen.

Meersh screamed. He bounded over the railing and ran on.

He ran so long that he lost all sense of what he was doing. Running became the only thing in life. He crossed the entire span that morning—four hundred *wyrths* at least—until he could see ahead the great south gatehouse of Valdemir.

The span ended in a barbican. The one tunnel going in split off into two beyond the portcullis, each with its own turnstile. A single guard regulated all traffic through the barbican, between Valdemir and the two other spans that met there. The guard did a comfortable business collecting bribes from those who wanted to cross for reasons they couldn't have named: Two spans ensured that he did very well indeed. He had grown lazy and corpulent from the easy pickings. His breakfast of beer and egg soup could last sometimes two hours or more. Meersh shot into the tunnel and dove over the turnstile so quickly that the guard, looking up from his bowl, glimpsed a blur that might have been a trick of light. It might have been a fluttering gull. He didn't feel like getting up for a blur.

Meersh had arbitrarily picked the right-hand tunnel. He emerged out the other side upon a span called Lukhan, where he had never been before. Lukhan was older than Valdemir and not so pleasant. Its stones were worn and uneven, the center avenue unswept and unwholesome. The tattered-awning fronted shops might have sold the secrets of dead empires. More likely they sold lies. The houses were narrow and not very high. A seedy crowd milled about, hawking and buying, cajoling and thieving. Looming above them were two great towers, linked by a narrow wall and topped with crumbling turrets. Meersh wove toward them through the crowd, putting as many

people as possible between him and the gatehouse. His sorry state raised any number of scornful looks, even from those most shabbily dressed. People stepped aside to let him pass. The essence of goat manure helped.

Almost beneath the towers, he entered a smaller, tighter throng that seemed as ragged as he was. A few men in tidy black uniforms hemmed them together. He slipped deep among them to hide himself. The beggarly throng moved slowly but steadily away from the barbican and toward the twin towers, for which he gave thanks.

A moment later, his pursuer emerged.

The iron monster had reverted. She'd become her own beautiful self again. Crouching low, Meersh was well hidden among the beggars, and they behind the looser crowd. Yet Sun-Through-Clouds stared straight at him across the plaza. To his amazement she smiled. Her smile flew to him and whispered in his ear, "A poor fate you've picked, dear Meersh. I won't set foot in there to retrieve you. My punishment would have been quicker than death in Lukhan." Her fingers pressed and moved as if snapping a wishbone.

She turned on her heel and walked back into the tunnel.

Meersh cheered. He had won. Sun-Through-Clouds was giving up. Now he could slip away, start over somewhere else where she would never find him. He straightened, straightened his ripped tunic, pushed his mane of hair into some kind of order, and tried to depart from the shuffling throng.

A large hand fell upon his shoulder.

"Where you think you're going, louse?" asked a voice as large as the hand.

"Hey? I, ahm, forgot something, cousin," he said.

The hand spun him around. "I'll bet you forgot to bathe." The hand belonged to one of the uniformed men. He'd closed in from the side. His sleeves sported lightning-bolt patches. "And what an appalling pong! Taken a goat lover, have you?"

"No, I forgot something important."

"Didn't we all? Else we'd be off somewhere with the living. Maybe on that span over there, heh?" He pointed to the bridge span Meersh had not chosen. Brightly festooned with banners and flags and pastel spires, it receded sharply into the mists, much more inviting than the dark towers looming overhead. The hand on his shoulder turned him again.

In front of him lay a black hole cut in the wall between the towers. As he looked on, the beggar at the head of the line stepped into and was swallowed by the blackness.

"No," Meersh protested fearfully. "I *am* living. I mean, I should be somewhere else than this, cousin."

"Sure you should." The hand slid from his shoulder to the back of his neck, where it clamped tightly. "If you want to be excused, *cousin*, at least come up with something original." The guard hauled him around the others ahead of him. "Special acknowledgment, louse, of your special stink. You move to the head of the line. Bye now." He propelled him into the blackness.

Meersh dropped like an anchor, straight to the center of the world.

At this point in his performances, Bardsham blows out the lantern behind his screen and all is dark. The audience shifts edgily, wondering if a tale can end at such an unsatisfying juncture: They know Meersh gets into trouble in every story, but they expect some resolution—a satisfying conclusion. Bardsham is a master at sensing their collective mood.

At the very moment when they would begin to leave, a dull red light comes

up behind the screen—the lantern now enclosed in red glass—and the audience settles back.

Meersh's figure comes into focus against the screen, but it's a pthisic shadow now, wasted as if by disease. The leather of this puppet's torso has been hammered so thin that the light passing through it reveals the thicker shadow of his skeleton. Years have passed in no time at all. Press-ganged into the mines of Lukhan, he has outlived those who fell in with him and others thrown in later, mainly because he has willingly eaten anything—absolutely anything—in order to survive. Propped up around the edges of the screen are the corpses of unfortunate pickers.

The mines of Lukhan were as ancient as the world. Indeed, much silver and marble had been recovered from them, some at one level and some at another. Levels were used up and then sealed off to allow a new crop of metal and marble to grow.

Over centuries, the mine shafts sank ever deeper until finally, inadvertently, they broke through into the Land of the Dead: A wall collapsed.

For the abject miners, life was already death, but the collapse brought the dead directly to them. On the other side of the large hole, the dead drifted in to watch the miners work themselves into the afterlife. The manner of dying seemed to fascinate them.

The dead were most peculiar. Their features often were flat, as if lightly drawn upon a smooth face. They were adorned as in life: Clothing shifted form with memory, as spirits reminisced. Except as memory, time did not exist in the Land of the Dead. The future would never arrive. For the ghosts, as for the miners, time ended with the present.

The Land of the Dead appeared to be a vast grotto receding into infinity. Figures wandered aimlessly throughout, dressed in costumes of ancient times, of other spans and stranger places. In the opening to the grotto, Meersh beheld strange finery every day: linen robes and striped headdresses beside smudges that looked like tailcoats and ruffles, bustiers and hoop-skirted ball gowns, liripipes and lithams. They might have included spirits from the Edgeworld. He couldn't say.

An aura surrounded each of them—a sphere of influence that gained dimension the closer one came. From a distance it was a bright mist, but closer it took on detail, becoming a mutable view hovering about the spirit.

One ghost that drifted past the opening had no hands but strange boxes on the ends of its arms with glowing centers that projected bluish moving images and music and voices as if each contained a tiny world of its own. A jungle aura hung around it.

The Land of the Dead as he knew of it was surrounded by molten rivers and guarded by monstrous creatures. Yet nothing seemed to separate the dead from the miners. Nothing except fear, and that derived mostly from stories about hapless fools who'd attempted to escape through the opening.

"What happened to them?" Meersh had asked his rheumy-eyed neighbor, a miner who died two weeks later at his side.

"Become ghosts themselves, the instant they crossed over and stepped on that misty green floor. Like that." He snapped his dark fingers. "Ate 'em right up."

Looking upon the suffering, slope-backed filthy workers around him, Meersh had replied, "That might not be so terrible." Nevertheless, he thought no more about sneaking into the grotto of dead souls—until the day the shades came looking for *him*.

The pickers—those who tore the silver from the open seams—worked constantly throughout the day with only one resting period, when the food was brought around and they sat and ate, hardly speaking to one another, barely looking at each other. Speaking would have taken too much energy.

Meersh sat against a rock and wiped his grimy fingers across the tin pan on which he'd been fed. He licked the grease from them and leaned back to enjoy a minute's peace. As he did, he spied two figures hovering at the edge of the fissure, watching him.

They were small, their faces oddly pointed, their eyes at the side instead of straight ahead. They looked a little bit like fish. He hadn't eaten fish in a very long time, and his stomach growled with longing. Their clothing looked vaguely familiar. And the blurry aura hanging between them—didn't it remind him of the interior of his house? His house. The recollection stirred memories a thousand years old.

Yes, of course they looked like fish.

He glanced around to be sure none of the guards was about, then crawled near the collapsed cave wall. "Vek!" he whispered. One of the two fish-spirits floated nearer.

"You know us?" asked a voice so icy that his head froze hearing it. But, like the clothing, it was familiar to him.

"Yes, cousin, I know you."

"We know you, too," accused Jurina. "You're the god of sleep who put us here." She asked, "When is our mother coming to get us? We don't like it here."

"Wake us up! Take us home, please."

"It's not so easily done. As you see." And he dragged his leg up to let them behold the shackles on his raw and festering ankles.

"We want our mother!" They began keening like the lost souls they were.

"Hush," Meersh hissed. If they kept on wailing, he would be in plenty of trouble; the guards would take away his meal and work him till he dropped. He glanced around at the other weary pickers, most of whom sagged over their tin plates, too exhausted to take interest. Almost dead themselves.

A plan took shape in his mind—an escape, at least a possible one. "Children," he said, "go back into your world there and find me one of my former cousins from this mine. Quickly now, if you want to get out."

"Why? There are plenty of them behind you," complained Jurina. Vek had already turned and moved off as fast as spirits could do.

"Yes," he told her patiently, "but look at them. They have no thought any longer of escape—not dead, but hardly alive. They're ruins."

"Why?"

"Civilization used them up."

She stared at him silently—at least he thought she was staring. It was hard to know for sure with her goggle eyes.

Vek came back shortly, towing another spirit behind him. Unlike the children this one was accompanied by a wide, crisp aura in which Meersh recognized an avenue of Shadowbridge. "Then it's you," said the spirit.

"And who would you be that you know me?"

"You know perfectly well, trickster."

Meersh recognized the voice of Rheumy Eye, the miner who'd died beside him, but the epithet troubled him. He remarked, "Your condition looks much improved."

"I'm dead, you bastard. How much improved is that?"

"You tell me. But first tell me what happens if I step across into your grotto. The truth now."

"Thinking to leave the mining profession? Escape your condign punishment?"

"I did you no harm in life. Why gibe me? Tell me—is the story true?"

"I see into you. They're too young to have the skill, but I know your lazy soul. You *will* nothing. You create good things and evil things all across the world, but you perceive none for what it is. You know no morality, and kindness comes only when you want something. Like now."

Meersh hung his head. He didn't have to try very hard to look despondent.

"Have pity. Isn't this punishment enough?"

"Pah."

"Show me so that I can escape this dreaded place that killed you. So that I may take these poor little fish—er, children—back to their mother, who even now grieves at their untimely loss." He worked up tears, and slapped both hands to his face, shaking as if he wept. He peered at the shade between his fingers.

"What's the good of that? They're dead, same as me," argued the ghost. "Same as you soon enough."

"I can save them if we hurry," he blubbered. "They're barely anchored. We can bring them back, you and me. Just *tell* me."

Rheumy Eye's aura now projected images of the mine itself. Meersh knew his resistance was breaking down. "Won't do you any good anyway. The story you have was put about to keep pickers from shambling off through the hole. If someone was to slip in here, they wouldn't know which way to go. Be lost forever, which ain't long, considering. Death does come for you. But slow and steady. Comes crawlin' up you from the ground, till your whole body is pale as the moon and cold as night, and you lose yourself in what you knew. So it's no lie, what the guards say. Just not so quick."

"But you know how to navigate it."

The ghost bobbed agitatedly. "What if I do? I can't leave. *I'm* not lightly dead. I'm *very* dead."

"But you can show me—show them—the way out so that I can rescue them. Don't you see?"

"Like I said—if you was to save these two, it'd be an accident of saving yourself, else there's more to it than you're telling."

He had to laugh at the reversal of things: The ghost could see right through him. He dropped his pretense of misery. "Happenstance, so be it," he said, "let accidents occur and fortuity reign. Who cares for my motives? Let them be *saved*. You alone can do that."

In the tunnel far behind him he heard the snap of a whip. The return of the guards. The daily meal was at an end. A hundred men groaned as they found a little more strength and got up on their swollen feet. Meersh hurried to collect small scrapings and nuggets of silver he'd concealed nearby while he dug. Over time he'd acquired enough silver to fill his pockets until his hips bulged on each side.

"You been planning."

"Escape was inevitable—just a question of how and when. Let's go."

Rheumy Eye shook his pale head at fathomless self-interest, then leaned down and wrapped an ethereal hand around the shackles. The iron froze, becoming instantly frangible. Meersh pulled his ankles apart and the chain snapped. The leg irons split. Quickly, he bounded into the grotto beside the

ghost. The bottoms of his feet burned as if seared. "Yiiiee! Hurry now." He reached for the children's hands but then stopped himself, recalling what had happened to the leg iron. "You stay close to me—not too close, Jurina—and I'll take you to your mother."

They trekked across the Land of the Dead. Meersh yipped and hopped as coldness like frostbite wormed through his feet. "Gods, this is excruciating," he hissed.

"It's your greed. All that silver weighs you down, you mire in death the faster. If I were you, I'd get rid of it."

Meersh shook his head defiantly, but soon the pain attacked his ankles. He thought, "I can do without some of it," and he reached into his pockets and sprinkled a few of the nuggets around him, where they dissolved instantly, leaving only icy puddles to mark where the ground had resorbed them. He was dismayed by the dissolution—leaving silver behind was one thing, eliminating it another. But like a balloon that's cast off ballast, he rose above the chill of death. His ankles felt all right again. Death stayed confined in the bottoms of his feet.

Deeper into the grotto, they encountered clusters of ghosts surrounded by small villages of their own dreaming. The proximity to other eidolons with shared memories redoubled the power of their projections. Their collective aura extended well beyond them, forming a landscape that might have been real. He walked through a farrago of places as alien to him as the realm of death itself was: a place where the houses stood on legs, shifting from side to side, and could run away from floods; another where people in close-fitting silver and gold costumes strolled arm in arm as if in a processional along a broad avenue overarched by impossible trees. A world underwater: Sunlight rippled eel-like across everything and the phantoms floated above the floor, swimming through the air. There were hundreds of such scenes; thousands more he might have beheld if he'd elected to remain.

Death soon imbrued his legs again. He groaned as it climbed his calves. He could no longer feel his feet.

"Throw away that silver," his penis begged. "Do you want to lose me, too? If it gets any higher, you'll be sorry!"

Peevishly then, he flung away more of the silver. In his anger he threw a large lump at a nearby group of ghosts. It struck one of them on the back, and the whole group turned as one. Their vague features darkened. Their heads followed him. He crept closer to his guide for protection.

"Really asking for it, ain't you?" said Rheumy Eye.

"It's because of this damned place that I have to give up my hard-earned riches. I have a perfect right to be upset."

The ghost made a grunt of dismissal and continued on. Beneath his temper, Meersh noted that his feet were still blue and his ankles still burned with cold. He pondered the dead man whom he'd struck. The fact was, the lump had *hit* him. It hadn't dissolved.

Meersh withdrew more of the silver from his pockets and said, "Vek, Jurina, you carry these for me, will you? It won't harm you as it does me."

The fish-children accepted the riches; he was careful not to let them touch him. Vek commented sharply, "Now maybe you won't slow us up so much."

"I? I've all but led this flight. Remember who arranged this for you."

The boy made no reply.

They came upon another cluster of ghosts, whose ambit was a desert land filled with towering temples and statuary. Some such spirits had passed

them previously, dressed in the same linen skirts and headdresses and necklaces of lapis lazuli. In this group, however, Meersh spotted two—a bearded man and a woman—seated on cushioned chairs in front of a board game that he had never seen before. He could not help but intrude. The ghosts took on definition. Both the man and woman had dark makeup circling their eyes. The woman wore a gold band around her head, and her breasts were exposed. He barely noticed the inclination of his penis at the sight of her. He was staring at the board. It had three rows of ten squares each. Four of the squares had markings on them. The playing pieces were black and white carved figures of mythological creatures. He watched the woman take four thin dice and throw them. The dice were curved along one side and flat along the other. The curved side was black, the flat side white. The woman moved one of the white pieces forward.

"What is it called, this game?" he inquired of her.

She looked up at him as if she hadn't noticed him before. "*Senet*," she replied. It was a game he had never heard of.

Behind him Jurina asked sharply, "What are you doing? We're carrying your silver; you should be going faster!"

Rheumy Eye replied, "He gives in to his urges wherever he goes. His appetite for games is stronger almost than his instinct for survival. He gives you his silver to stay alive, then dallies here to watch stones pushed along a board." He came up beside him. "You want this for yourself, pawky?"

"It's exquisite."

"Take it, they won't miss it."

Meersh stared incredulously at the miner's ghost.

"Don't trust me? Think I might treat you the way you do everyone else?"

The ghost laughed. He stepped in and whisked away the board. He handed it to Meersh. There was a drawer in one side of it for storing the pieces for safekeeping, but the pieces had disappeared. When Meersh glanced back at the couple, the board and pieces lay on the table in front of them as before. Rheumy Eye chortled at his confusion. "Time," he said. "It's no river here."

Meersh's feet were burning again because of the weight of the board. He handed over the last parings of silver to the children.

"Not much farther," promised the ghost.

The burning cold did not abate, but Meersh would not part with his board. Pretty soon one of his toes fell off. He yelped and picked it up. It was frozen solid. He put it in the drawer of the game board. Before long he lost another.

They headed for a heap of loose rock leading to a cavern wall. "That's your way," their guide said. The last of Meersh's toes came off. He put it with the others in the tiny drawer; now with every step he stumbled off-balance.

Rheumy Eye drew up. "I'm too much dead to go farther than this. The climb is yours to make, all the way to that tiny dot of light up there. You do good in taking these children with you, even if it's that box full of your toes that moves you to it. Your reward suits you." He left them.

Meersh quickly climbed off the floor of the grotto and up the rock face. The children kept with him but not through any effort on his part. If he'd still had his toes on his feet, he might have climbed fast enough to leave them behind.

The circle of light grew brighter as it grew larger. It played across them in their ascent. The shades of the children brushed up against him. He cried out in fear at their touch, but nothing happened to him. Steadily, they took on form and definition. They were no longer fish, but were becoming something else animal-like. As they tired of the climb, they grabbed onto his legs and

hung from his pockets. To brush them off, he would have had to let go of the rock face or the game, and he would do neither. He dragged them along as fast as he could go.

At the top Meersh poked his head out into the light. He found himself overlooking the whole of a span. A gull squatted beside him, watching him incuriously. "Hello, cousin," he said to it. The gull disdainfully ignored him and walked away. He pulled himself halfway out of the hole, enough so that he could fold himself over the lip of it and free his hands. He set down the *senet* board and took hold of each child, one at a time, and drew them out over his head. They were wholly transformed. They had round, furry faces, and black rings encircled their eyes, though that might have been soot. When they looked at him, they showed their tiny sharp teeth. At least, he thought, they weren't fish anymore. He climbed out after them and snatched up his game board before anything happened to it.

He stood on a ridge of clay pantiles along the peak of a house. He was battered and torn and covered with greasy chimney soot. A great vista surrounded him: the vast ocean; the great broad span with its single main avenue off which capillary lanes twisted every which way; the high, cupola-topped towers where the wealthy and the governors dwelled, many of whom had paid handsomely for his games and his knowledge. A thousand rooftops distant stood the weathered twin towers of Lukhan like two smudges impressed upon the clouds; and, directly below, a small circle of houses like petals on a sunflower. "This seems awfully familiar," he remarked.

Vek looked up, disgusted. "We're on top of your house," he said. "How do we get down?"

"Call for help I suppose." He was dismayed by their location. But, sure enough, what they had emerged from was his chimney. He peered into it, at the edges of blackened bricks dwindling to darkness.

The children cried for help, which brought some of Meersh's neighbors with a ladder; it also caught the attention of people on the main avenue, who gathered close to the railing and pointed and watched as the three of them clambered to the edge. Word of them spread like disease.

The children refused to be quit of him then. He pleaded to his neighbors, "Cousins, please, someone take them over to their mother, she only lives across the way. Isn't she home? Well, let them *wait* for her, then." His rescuers plainly felt they'd done enough in helping him climb down two stories. "You'd have been able to shimmy down the drain if you took care of yourself," one of them told him. "You're starving to death, Meersh." And, "What's happened to your feet, then?"

With the greatest reluctance, he took the children inside. He inspected the interior. The pot of green jelly was gone. There were no fillets in his frying pan, no fish heads beside the stove. He hazarded a look behind the tapestry where he'd stuffed the children's clothing, and the clothes were gone, too. These miracles left him addled.

There came a loud knock on his door. Thinking it was one of the neighbors, he flung it back to find Sun-Through-Clouds standing there. Her look changed from fury to joy as she spied the animal-children behind him. The thunderhead vanished; the sun broke upon him. "Oh, my darlings!" she cried and swept in while he leaped as far from her as he could. But he couldn't balance without his toes and fell into the hammock she'd woven for him.

Sun-Through-Clouds dropped to her knees and hugged her children to her.

She kissed their faces, inhaled them, her babies, her Raki babies. They whispered excitedly to her, words on top of each other, the way children do.

She looked over her shoulder at Meersh with large and liquid eyes. He untangled himself from the hammock, clutched the game board tightly to his chest, and took a step toward the door.

Sun-Through-Clouds rose and barred his way. "And you!" she cried. "You are my *hero*. You penetrated the realm of death to bring them back to me, just like in great stories. How I misjudged you, my dear." Her arms circled him and her mouth sought his. He remained rigid with terror. She pressed herself tightly to him. His penis had nothing to say about her now. It had retreated as far as it could. Had it been able, it would have detached, slid surreptitiously down his leg and scooted under the nearest heap of games.

Her nails raked his back. Didn't she notice the soot and grease, how awful he smelled?

"I swear to reward you with every peccant pleasure you desire, my dearest, dearest Meersh," she whispered in his ear. Her thighs wrapped around his leg. Her teeth pinched his earlobe. All he heard was the whuffling, creaking breath of the monster that had pursued him across the whole of Valdemir.

She pushed him back with one hand. The other caught the drawstring of his trousers. He fell again into her net.

His penis screamed, and he fainted dead away.

The articulated puppet lies swinging in the hammock. The other figures—the beautiful woman and the transformed children—silently withdraw. Then he rises from the hammock to take his bows. There's always plentiful applause and cries of "*Pe-nis, Pe-nis!*" more often than not, until it, too, appears, rising from his torso. Both sexes, all creatures, cheer him. They know he speaks the truth about the caprices of life.

The lamp goes out on the shadow-puppet screen.

Bardsham emerges to more applause. His assistants hang back behind him.

When the theater empties, they jump to action. One takes down the curtains and collapses the framework. One replaces all the puppets in neat piles in their cases, ready for the next performance. There will always be a next performance somewhere. And there will always be another story of Meersh. Meersh did many things, awake and asleep, in the earliest times on Shadow-bridge. He did everything. His escapades are cautionary.

Bardsham will leave them to dismantling. If they're performing in a hall, he goes to the tavern; if they're in a tavern he goes to the bar. If he's lucky, someone will show her interest. If she lingers before him, he'll smile and do his best to enchant her. Though he tells many tales, it's Meersh who's won him fame. Meersh she'll ask about. He's not a handsome man, Bardsham, and it's a rough life, traveling the spans. Closed up playing in a space not much larger than two kegs, he probably stinks as bad as Meersh did climbing out the chimney. By the time she finally accompanies him, he's often five parts drunk as well. But in his room, there's the magic of love and laughter. He'll strike up a conversation with his own penis to entertain her, and it will answer always in the affirmative. Always "Yes!" it wants her. "Yes!" it loves her. "Yes!" it adores her. Yes, it is no different for him.

Meersh the Bedeviler speaks the truth. Here and there and halfway round the world. Truth is usually good for a night. ○



SPHINX

My table holds sweet butter, bread;
Black tea brews in the round-bellied pot.
Sun coins dapple her stone-maned head,
Around which insects buzz and plot.
In her shade, I spoon honeyed quince
And eye the curve of that lion back,
Thinking of questioners ages since,
Who learned those claws could slash and hack.

—Catherine Mintz

Michael Swanwick

RADIANT DOORS



Michael Swanwick's latest novel, *Jack Faust*, is currently a finalist for the Hugo award. The book's trade paperback edition will be out soon from Avon.

The doors began opening on a Tuesday in early March. Only a few at first—flickering and uncertain because they were operating at the extreme end of their temporal range—and those few from the earliest days of the exodus, releasing fugitives who were unstarved and healthy, the privileged scientists and technicians who had created or appropriated the devices that made their escape possible. We processed about a hundred a week, in comfortable isolation and relative secrecy. There were videocams taping everything, and our own best people madly scribbling notes and holding seminars and teleconferences where they debated the revelations.

Those were, in retrospect, the good old days.

In April the floodgates swung wide. Radiant doors opened everywhere, disgorging torrents of ragged and fearful refugees. There were millions of them and they had every one, to the least and smallest child, been horribly, horribly abused. The stories they told were enough to sicken anyone. I know.

We did what we could. We set up camps. We dug latrines. We ladled out soup. It was a terrible financial burden to the host governments, but what else could they do? The refugees were our descendants. In a very real sense, they were our children.

Throughout that spring and summer, the flow of refugees continued to grow. As the cumulative worldwide total ran up into the tens of millions, the authorities were beginning to panic—was this going to go on forever, a plague of human locusts that would double and triple and quadruple the population, overrunning the land and devouring all the food? What measures might we be forced to take if this kept up? The planet was within a lifetime of its loading capacity as it was. It couldn't take much more. Then in August the doors simply ceased. Somebody up in the future had put an absolute and final end to them.

It didn't bear thinking what became of those who hadn't made it through.

"More tales from the burn ward," Shriver said, ducking through the door flap. That was what he called atrocity stories. He dumped the files on my desk and leaned forward so he could leer down my blouse. I scowled him back a step.

"Anything useful in them?"

"Not a scrap. But that's not my determination, is it? You have to read each and every word in each and every report so that you can swear and attest that they contain nothing the Commission needs to know."

"Right." I ran a scanner over the universals for each of the files, and dumped the lot in the circular file. Touched a thumb to one of the new pads—better security devices were the very first benefit we'd gotten from all that influx of future tech—and said, "Done."

Then I linked my hands behind my neck and leaned back in the chair. The air smelled of canvas. Sometimes it seemed that the entire universe smelled of canvas. "So how are things with you?"

"About what you'd expect. I spent the morning interviewing vics."

"Better you than me. I'm applying for a transfer to Publications. Out of these tents, out of the camps, into a nice little editorship somewhere, writing press releases and articles for the Sunday magazines. Cushy job, my very own cubby, and the satisfaction of knowing I'm doing some good for a change."

"It won't work," Shriver said. "All these stories simply blunt the capacity for feeling. There's even a term for it. It's called compassion fatigue. After a certain point you begin to blame the vic for making you hear about it."

I wriggled in the chair, as if trying to make myself more comfortable, and stuck out my breasts a little bit more. Shriver sucked in his breath. Quietly, though—I'm absolutely sure he thought I didn't notice. I said, "Hadn't you better get back to work?"

Shriver exhaled. "Yeah, yeah, I hear you." Looking unhappy, he ducked under the flap out into the corridor. A second later his head popped back in, grinning. "Oh, hey, Ginny—almost forgot. Huong is on sick roster. Gevorkian said to tell you you're covering for her this afternoon, debriefing vics."

"Bastard!"

He chuckled, and was gone.

I sat interviewing a woman whose face was a mask etched with the aftermath of horror. She was absolutely cooperative. They all were. Terrifyingly so. They were grateful for anything and everything. Sometimes I wanted to strike the poor bastards in the face, just to see if I could get a human reaction out of them. But they'd probably kiss my hand for not doing anything worse.

"What do you know about midpoint-based engineering? Gnat relays? Sub-local mathematics?"

Down this week's checklist I went, and with each item she shook her head. "Prigogine engines? SVAT trance status? Lepton soliloquies?" Nothing, nothing, nothing. "Phlenaria? The Toledo incident? 'Third Martyr' theory? Science Investigatory Group G?"

"They took my daughter," she said to this last. "They did things to her."

"I didn't ask you that. If you know anything about their military organization, their machines, their drugs, their research techniques—fine. But I don't want to hear about people."

"They did things." Her dead eyes bored into mine. "They—"

"Don't tell me."

"—returned her to us midway through. They said they were understaffed. They sterilized our kitchen and gave us a list of more things to do to her. Terrible things. And a checklist like yours to write down her reactions."

"Please."

"We didn't want to, but they left a device so we'd obey. Her father killed himself. He wanted to kill her too, but the device wouldn't let him. After he died, they changed the settings so I couldn't kill myself too. I tried."

"God damn." This was something new. I tapped my pen twice, activating its piezochronic function, so that it began recording fifteen seconds earlier. "Do you remember anything about this device? How large was it? What did the controls look like?" Knowing how unlikely it was that she'd give us anything usable. The average refugee knew no more about their technology than the average here-and-now citizen knows about television and computers. You turn them on and they do things. They break down and you buy a new one.

Still, my job was to probe for clues. Every little bit contributed to the big picture. Eventually they'd add up. That was the theory, anyway. "Did it have an internal or external power source? Did you ever see anybody servicing it?"

"I brought it with me," the woman said. She reached into her filthy clothing and removed a fist-sized chunk of quicksilver with small, multicolored highlights. "Here."

She dumped it in my lap.

It was automation that did it or, rather, hyperautomation. That old bugaboo of fifty years ago had finally come to fruition. People were no longer needed to mine, farm, or manufacture. Machines made better administrators, more attentive servants. Only a very small elite—the vics called them simply their Owners—were required to order and ordain. Which left a lot of people who were just taking up space.

There had to be *something* to do with them.

As it turned out, there was.

That's my theory, anyway. Or, rather, one of them. I've got a million: Hyperautomation. Cumulative hardening of the collective conscience. Circular determinism. The implicitly aggressive nature of hierarchic structures. Compassion fatigue. The banality of evil.

Maybe people are just no damn good. That's what Shriver would have said.

The next day I went zombie, pretty much. Going through the motions, connecting the dots. LaShana in Requisitions noticed it right away. "You ought to take the day off," she said, when I dropped by to see about getting a replacement PzC(15)/pencorder. "Get away from here, take a walk in the woods, maybe play a little golf."

"Golf," I said. It seemed the most alien thing in the universe, hitting a ball with a stick. I couldn't see the point of it.

"Don't say it like that. You love golf. You've told me so a hundred times."

"I guess I have." I swung my purse up on the desk, slid my hand inside, and gently stroked the device. It was cool to the touch and vibrated ever so faintly under my fingers. I withdrew my hand. "Not today, though."

LaShana noticed. "What's that you have in there?"

"Nothing." I whipped the purse away from her. "Nothing at all." Then, a little too loud, a little too blustery, "So how about that pencorder?"

"It's yours." She got out the device, activated it, and let me pick it up. Now only I could operate the thing. Wonderful how fast we were picking up the technology. "How'd you lose your old one, anyway?"

"I stepped on it. By accident." I could see that LaShana wasn't buying it. "Damn it, it was an accident! It could have happened to anyone."

I fled from LaShana's alarmed, concerned face.

Not twenty minutes later, Gevorkian came sleazing into my office. She smiled, and leaned lazily back against the file cabinet when I said hi. Arms folded. Eyes sad and cynical. That big plain face of hers, tolerant and worldly-wise. Wearing her skirt just a *smidge* tighter, a *touch* shorter than was strictly correct for an office environment.

"Virginia," she said.

"Linda."

We did the waiting thing. Eventually, because I'd been here so long I honestly didn't give a shit, Gevorkian spoke first. "I hear you've been experiencing a little disgruntlement."

"Eh?"

"Mind if I check your purse?"

Without taking her eyes off me for an instant, she hoisted my purse, slid a hand inside, and stirred up the contents. She did it so slowly and dreamily that, I swear to God, I half expected her to smell her fingers afterward. Then, when she didn't find the expected gun, she said, "You're not planning on going postal on us, are you?"

I snorted.

"So what is it?"

"What is it?" I said in disbelief. I went to the window. Zip zip zip, down came a rectangle of cloth. Through the scrim of mosquito netting the camp revealed itself: canvas as far as the eye could see. There was nothing down there as fancy as our labyrinthine government office complex at the top of the hill—what we laughingly called the Tentagon—with its canvas air-conditioning ducts and modular laboratories and cafeterias. They were all army surplus, and what wasn't army surplus was Boy Scout hand-me-downs. "Take a look. Take a goddamn fucking look. That's the future out there, and it's barreling down on you at the rate of sixty seconds per minute. You can see it and still ask me that question?"

She came and stood beside me. Off in the distance, a baby began to wail. The sound went on and on. "Virginia," she said quietly. "Ginny, I understand how you feel. Believe me, I do. Maybe the universe is deterministic. Maybe there's no way we can change what's coming. But that's not proven yet. And until it is, we've got to soldier on."

"Why?"

"Because of *them*." She nodded her chin toward the slow-moving revenants of things to come. "They're the living proof of everything we hate and fear. They are witness and testimony to the fact that absolute evil exists. So long as there's the least chance, we've got to try to ward it off."

I looked at her for a long, silent moment. Then, in a voice as cold and calmly modulated as I could make it, I said, "Take your god-damned hand off my ass."

She did so.

I stared after her as, without another word, she left.

This went beyond self-destructive. All I could think was that Gevorkian wanted out but couldn't bring herself to quit. Maybe she was bucking for a sexual harassment suit. But then again, there's definitely an erotic quality to the death of hope. A sense of license. A nicely edgy feeling that since nothing means anything anymore, we might as well have our little flings. That they may well be all we're going to get.

And all the time I was thinking this, in a drawer in my desk the device quietly sat. Humming to itself.

People keep having children. It seems such a terrible thing to do. I can't understand it at all, and don't talk to me about instinct. The first thing I did, after I realized the enormity of what lay ahead, was get my tubes tied. I never thought of myself as a breeder, but I'd wanted to have the option in case I ever changed my mind. Now I knew I would not.

It had been one hell of a day, so I decided I was entitled to quit work early. I was cutting through the camp toward the civ/noncom parking lot when I ran across Shriver. He was coming out of the vic latrines. Least romantic place on Earth. Canvas stretching forever and dispirited people shuffling in and out. And the smell! Imagine the accumulated stench of all the sick shit in the world, and you've just about got it right.

Shriver was carrying a bottle of Spanish champagne under his arm. The bottle had a red bow on it.

"What's the occasion?" I asked.

He grinned like Kali and slid an arm through mine. "My divorce finally came through. Wanna help me celebrate?"

Under the circumstances, it was the single most stupid thing I could possibly do. "Sure," I said. "Why not?"

Later, in his tent, as he was taking off my clothes, I asked, "Just why did your wife divorce you, Shriver?"

"Mental cruelty," he said, smiling.

Then he laid me down across his cot and I let him hurt me. I needed it. I needed to be punished for being so happy and well fed and unbrutalized while all about me . . .

"Harder, God damn you," I said, punching him, biting him, clawing up blood. "Make me pay."

Cause and effect. Is the universe deterministic or not? If everything inevitably follows what came before, tickety-tock, like gigantic, all-inclusive clockwork, then there is no hope. The refugees came from a future that cannot be turned away. If, on the other hand, time is quantized and uncertain, unstable at every point, constantly prepared to collapse in any direction in response to totally random influences, then all that suffering that came pouring in on us over the course of six long and rainy months might be nothing more than a phantom. Just an artifact of a rejected future.

Our future might be downright pleasant.

We had a million scientists working in every possible discipline, trying to make it so. Biologists, chaoticists, physicists of every shape and description. Fabulously dedicated people. Driven. Motivated. All trying to hold out a hand before what must be and say "Stop!"

How they'd love to get their mitts on what I had stowed in my desk.

I hadn't decided yet whether I was going to hand it over, though. I wasn't at all sure what was the right thing to do. Or the smart thing, for that matter.

Gevorkian questioned me on Tuesday. Thursday, I came into my office to discover three UN soldiers with hand-held detectors, running a search.

I shifted my purse back on my shoulder to make me look more strack, and said, "What the hell is going on here?"

"Random check, ma'am." A dark-eyed Indian soldier young enough to be if not my son then my little brother politely touched fingers to forehead in a kind of salute. "For up-time contraband." A sewn tag over one pocket proclaimed his name to be PATHAK. "It is purely standard, I assure you."

I counted the stripes on his arm, compared them to my civilian GS-rating and determined that by the convoluted UN protocols under which we operated, I outranked him.

"Sergeant-Major Pathak. You and I both know that all foreign nationals operate on American soil under sufferance, and the strict understanding that you have no authority whatsoever over native civilians."

"Oh, but this was cleared with your Mr.—"

"I don't give a good goddamn if you cleared it with the fucking Dalai Lama! This is my office—your authority ends at the door. You have no more right to be here than I have to finger-search your goddamn rectum. Do you follow me?"

He flushed angrily, but said nothing.

All the while, his fellows were running their detectors over the file cabinet, the storage closets, my desk. Little lights on each flashed red red red. Negative negative negative. The soldiers kept their eyes averted from me. Pretending they couldn't hear a word.

I reamed their sergeant-major out but good. Then, when the office had been thoroughly scanned and the two noncoms were standing about uneasily, wondering how long they'd be kept here, I dismissed the lot. They were all three so grateful to get away from me that nobody asked to examine my purse. Which was, of course, where I had the device.

After they left, I thought about young Sergeant-Major Pathak. I wondered what he would have done if I'd put my hand on his crotch and made a crude suggestion. No, make that an order. He looked to be a real straight arrow. He'd squirm for sure. It was an alarmingly pleasant fantasy.

I thought it through several times in detail, all the while holding the gizmo in my lap and stroking it like a cat.

The next morning, there was an incident at Food Processing. One of the women started screaming when they tried to inject a microminiaturized identi-chip under the skin of her forehead. It was a new system they'd come up with that was supposed to save a per-unit of thirteen cents a week in tracking costs. You walked through a smart doorway, it registered your presence, you picked up your food, and a second doorway checked you off on the way out. There was nothing in it to get upset about.

"But the woman began screaming and crying and—this happened right by the kitchens—snatched up a cooking knife and began stabbing herself, over and over. She managed to make nine whacking big holes in herself before the thing was wrestled away from her. The orderlies took her to Intensive, where the doctors said it would be a close thing either way.

After word of that got around, none of the refugees would allow themselves to be identi-chipped. Which really pissed off the UN peacekeepers assigned to the camp, because earlier a couple hundred vics had accepted the chips without so much as a murmur. The Indian troops thought the refugees were willfully trying to make their job more difficult. There were complaints of racism, and rumors of planned retaliation.

I spent the morning doing my bit to calm down things down—hopeless—and the afternoon writing up reports that everyone upstream wanted to receive ASAP and would probably file without reading. So I didn't have time to think about the device at all.

But I did. Constantly.

It was getting to be a burden.

For health class, one year in high school, I was given a ten-pound sack of flour, which I had to name and then carry around for a month, as if it were a baby. Bippy couldn't be left unattended; I had to carry it everywhere or else find somebody willing to baby-sit it. The exercise was supposed to teach us responsibility and scare us off of sex. The first thing I did when the month was over was to steal my father's .45, put Bippy in the backyard, and empty the clip into it, shot after shot. Until all that was left of the little bastard was a cloud of white dust.

The machine from the future was like that. Just another bippy. I had it, and dared not get rid of it. It was obviously valuable. It was equally obviously dangerous. Did I really want the government to get hold of something that could compel people to act against their own wishes? Did I honestly trust them not to immediately turn themselves into everything that we were supposedly fighting to prevent?

I'd been asking myself the same questions for—what?—four days. I'd thought I'd have some answers by now.

I took the bippy out from my purse. It felt cool and smooth in my hand, like melting ice. No, warm. It felt both warm and cool. I ran my hand over and over it, for the comfort of the thing.

After a minute, I got up, zipped shut the flap to my office, and secured it with a twist tie. Then I went back to my desk, sat down, and unbuttoned my blouse. I rubbed the bippy all over my body: up my neck, and over my breasts and around and around on my belly. I kicked off my shoes and clumsily shucked off my pantyhose. Down along the outside of my calves it went, and up the insides of my thighs. Between my legs. It made me feel filthy. It made me feel a little less like killing myself.

How it happened was, I got lost. How I got lost was, I went into the camp after dark.

Nobody goes into the camp after dark, unless they have to. Not even the Indian troops. That's when the refugees hold their entertainments. They had no compassion for each other, you see—that was our dirty little secret. I saw a toddler fall into a campfire once. There were vics all around, but if it hadn't been for me, the child would have died. I snatched it from the flames before it got too badly hurt, but nobody else made a move to help it. They just stood there looking. And laughing.

"In Dachau, when they opened the gas chambers, they'd find a pyramid of human bodies by the door," Shriver told me once. "As the gas started to work, the Jews panicked and climbed over each other, in a futile attempt to escape. That was deliberate. It was designed into the system. The Nazis didn't just want them dead—they wanted to be able to feel morally superior to their victims afterward."

So I shouldn't have been there. But I was unlatching the door to my trailer when it suddenly came to me that my purse felt wrong. Light. And I realized that I'd left the bippy in the top drawer of my office desk. I hadn't even locked it.

My stomach twisted at the thought of somebody else finding the thing. In a panic, I drove back to the camp. It was a twenty-minute drive from the trailer park and by the time I got there, I wasn't thinking straight. The civ/non-com parking lot was a good quarter-way around the camp from the Tentagon. I thought it would be a simple thing to cut through. So, flashing my DOD/Future History Division ID at the guard as I went through the gate, I did.

Which was how I came to be lost.

There are neighborhoods in the camp. People have a natural tendency to sort themselves out by the nature of their suffering. The twitchers, who were victims of paralogical reprogramming, stay in one part of the camp, and the mods, those with functional normative modifications, stay in another. I found myself wandering through crowds of people who had been "healed" of limbs, ears, and even internal organs—there seemed no sensible pattern. Sometimes our doctors could effect a partial correction. But our primitive surgery was, of course, nothing like that available in their miraculous age.

I'd taken a wrong turn trying to evade an eyeless, noseless woman who kept grabbing at my blouse and demanding money, and gotten all turned around in the process when, without noticing me, Gevorkian went striding purposefully by.

Which was so unexpected that, after an instant's shock, I up and followed her. It didn't occur to me not to. There was something strange about the way she held herself, about her expression, her posture. Something unfamiliar.

She didn't even *walk* like herself.

The vics had dismantled several tents to make a large open space surrounded by canvas. Propane lights, hung from tall poles, blazed in a ring about it. I saw Gevorkian slip between two canvas sheets and, after a moment's hesitation, I followed her.

It was a rat fight.

The way a rat fight works, I learned that night, is that first you catch a whole bunch of Norwegian rats. Big mean mothers. Then you get them in a bad mood, probably by not feeding them, but there are any number of other methods that could be used. Anyway, they're feeling feisty. You put a dozen of them in a big pit you've dug in the ground. Then you dump in your contestant. A big guy with a shaven head and his hands tied behind his back. His genitals are bound up in a little bit of cloth, but other than that he's naked.

Then you let them fight it out. The rats leap and jump and bite and the big guy tries to trample them underfoot or crush them with his knees, his chest, his head—whatever he can bash them with.

The whole thing was lit up bright as day, and all the area around the pit was crammed with vics. Some shouted and urged on one side or the other. Others simply watched intently. The rats squealed. The human fighter bared his teeth in a hideous rictus and fought in silence.

It was the creepiest thing I'd seen in a long time.

Gevorkian watched it coolly, without any particular interest or aversion. After a while it was obvious to me that she was waiting for someone.

Finally that someone arrived. He was a lean man, tall, with keen, hatchet-like features. None of the vics noticed. Their eyes were directed inward, toward the pit. He nodded once to Gevorkian, then backed through the canvas again.

She followed him.

I followed her.

They went to a near-lightless area near the edge of the camp. There was nothing there but trash, the backs of tents, the razor-wire fence, and a gate padlocked for the night.

It was perfectly easy to trail them from a distance. The stranger held himself proudly, chin up, eyes bright. He walked with a sure stride. He was nothing at all like the vics.

It was obvious to me that he was an Owner.

Gevorkian too. When she was with him that inhuman arrogance glowed in her face as well. It was as if a mask had been removed. The fire that burned in his face was reflected in hers.

I crouched low to the ground, in the shadow of a tent, and listened as the stranger said, "Why hasn't she turned it in?"

"She's unstable," Gevorkian said. "They all are."

"We don't dare prompt her. She has to turn it in herself."

"She will. Give her time."

"Time," the man repeated. They both laughed in a way that sounded to me distinctly unpleasant. Then, "She'd better. There's a lot went into this operation. There's a lot riding on it."

"She will."

I stood watching as they shook hands and parted ways. Gevorkian turned and disappeared back into the tent city. The stranger opened a radiant door and was gone.

Cause and effect. They'd done . . . *whatever* it was they'd done to that woman's daughter just so they could plant the bippy with me. They wanted me to turn it in. They wanted our government to have possession of a device that would guarantee obedience. They wanted to give us a good taste of what it was like to be them.

Suddenly I had no doubt at all what I should do. I started out at a determined stride, but inside of nine paces I was *running*. Vics scurried to get out of my way. If they didn't move fast enough, I shoved them aside.

I had to get back to the bippy and destroy it.

Which was stupid, stupid, stupid. If I'd kept my head down and walked slowly, I would have been invisible. Invisible and safe. The way I did it, though, cursing and screaming, I made a lot of noise and caused a lot of fuss. Inevitably, I drew attention to myself.

Inevitably, Gevorkian stepped into my path.

I stumbled to a halt.

"Gevorkian," I said feebly. "Linda. I—"

All the lies I was about to utter died in my throat when I saw her face. Her expression. Those eyes. Gevorkian reached for me. I skipped back in utter panic, turned—and fled. Anybody else would have done the same.

It was a nightmare. The crowds slowed me. I stumbled. I had no idea where I was going. And all the time, this monster was right on my heels.

Nobody goes into the camp after dark, unless they have to. But that doesn't mean that nobody goes in after dark. By sheer good luck, Gevorkian chased me into the one part of the camp that had something that outsiders could find nowhere else—the sex-for-hire district.

There was nothing subtle about the way the vics sold themselves. The trampled-grass street I found myself in was lined with stacks of cages like the ones they use in dog kennels. They were festooned with strings of Christmas lights, and each one contained a crouched boy. Naked, to best display those mods and deformities that some found attractive. Off-duty soldiers strolled up and down the cages, checking out the possibilities. I recognized one of them.

"Sergeant-Major Pathak!" I cried. He looked up, startled and guilty. "Help me! Kill her—please! Kill her now!"

Give him credit, the sergeant-major was a game little fellow. I can't imagine what we looked like to him, one harridan chasing the other down the streets of Hell. But he took the situation in at a glance, unholstered his sidearm and stepped forward. "Please," he said. "You will both stand where you are. You will place your hands upon the top of your head. You will—"

Gevorkian flicked her fingers at the young soldier. He screamed, and clutched his freshly crushed shoulder. She turned away from him, dismissively. The other soldiers had fled at the first sign of trouble. All her attention was on me, trembling in her sight like a winded doe. "*Sweet little vic,*" she purred. "If you won't play the part we had planned for you, you'll simply have to be silenced."

"No," I whispered.

She touched my wrist. I was helpless to stop her. "You and I are going to go to my office now. We'll have fun there. Hours and hours of fun."

"Leave her be."

As sudden and inexplicable as an apparition of the Virgin, Shriver stepped out of the darkness. He looked small and grim.

Gevorkian laughed, and gestured.

But Shriver's hand reached up to intercept hers, and where they met, there was an electric blue flash. Gevorkian stared down, stunned, at her hand. Bits of tangled metal fell away from it. She looked up at Shriver.

He struck her down.

She fell with a brief harsh cry, like that of a sea gull. Shriver kicked her, three times, hard: In the ribs. In the stomach. In the head. Then, when she looked like she might yet regain her feet, "It's one of *them*!" he shouted. "Look at her! She's a spy for the Owners! She's from the future! Owner! Look! Owner!"

The refugees came tumbling out of the tents and climbing down out of their cages. They looked more alive than I'd ever seen them before. They were red-faced and screaming. Their eyes were wide with hysteria. For the first time in my life, I was genuinely afraid of them. They came running. They swarmed like insects.

They seized Gevorkian and began tearing her apart.

I saw her struggle up and halfway out of their grips, saw one arm rise up above the sea of clutching hands, like that of a woman drowning.

Shriver seized my elbow and steered me away before I could see any more. I saw enough, though.

I saw too much.

"Where are we going?" I asked when I'd recovered my wits.

"Where do you think we're going?"

He led me to my office.

There was a stranger waiting there. He took out a hand-held detector like Sergeant-Major Pathak and his men had used earlier and touched it to himself, to Shriver, and to me. Three times it flashed red, negative. "You travel through time, you pick up a residual charge," Shriver explained. "It never goes away. We've known about Gevorkian for a long time."

"US Special Security," the stranger said, and flipped open his ID. It meant diddle-alls to me. There was a badge. It could have read Captain Crunch for all I knew or cared. But I didn't doubt for an instant that he was SS. He had that look. To Shriver he said, "The neutralizer."

Shriver unstrapped something glittery from his wrist—the device he'd

used to undo Gevorkian's weapon—and, in a silent bit of comic bureaucratic punctilio, exchanged it for a written receipt. The security officer touched the thing with his detector. It flashed green. He put both devices away in interior pockets.

All the time, Shriver stood in the background, watching. He wasn't told to go away.

Finally, Captain Crunch turned his attention to me again. "Where's the snark?"

"Snark?"

The man removed a thin scrap of cloth from an inside jacket pocket and shook it out. With elaborate care, he pulled it over his left hand. An inertial glove. Seeing by my expression that I recognized it, he said, "Don't make me use this."

I swallowed. For an instant I thought crazily of defying him, of simply refusing to tell him where the bippy was. But I'd seen an inertial glove in action before, when a lone guard had broken up a camp riot. He'd been a little man. I'd seen him crush heads like watermelons.

Anyway, the bippy was in my desk. They'd be sure to look there.

I opened the drawer, produced the device. Handed it over. "It's a plant," I said. "They want us to have this."

Captain Crunch gave me a look that told me clear as words exactly how stupid he thought I was. "We understand more than you think we do. There are circles and circles. We have informants up in the future, and some of them are more highly placed than you'd think. Not everything that's known is made public."

"Damn it, this sucker is *evil*."

A snake's eyes would look warmer than his. "Understand this: We're fighting for our survival here. Extinction is null-value. You can have all the moral crises you want when the war is won."

"It should be suppressed. The technology. If it's used, it'll just help bring about . . ."

He wasn't listening.

I'd worked for the government long enough to know when I was wasting my breath. So I shut up.

When the captain left with the bippy, Shriver still remained, looking ironically after him. "People get the kind of future they deserve," he observed.

"But that's what I'm saying. Gevorkian came back from the future in order to help bring it about. That means that time isn't deterministic." Maybe I was getting a little weepy. I'd had a rough day. "The other guy said there was a lot riding on this operation. They didn't know how it was going to turn out. They didn't *know*."

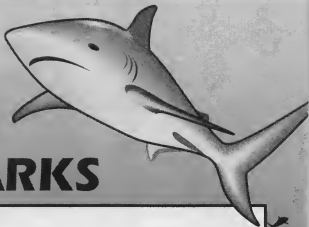
Shriver grunted, not at all interested.

I plowed ahead unheeding. "If it's not deterministic—if they're working so hard to bring it about—then all our effort isn't futile at all. This future can be prevented."

Shriver looked up at last. There was a strangely triumphant gleam in his eye. He flashed that roguish ain't-this-fun grin of his, and said, "I don't know about you, but some of us are working like hell to *achieve* it."

With a jaunty wink, he was gone. ○

LAND SHARKS



Designed as tiny harmless pets
their escape from the genetic lab
was barely newsworthy,

Cruising the concrete sidewalks
their miniature fins bobbing up
through cracks in the grey squares,

Hoping for a tired pigeon or dropped food
steering clear of leather soles
and running rubber cleats,

When death comes their tiny bodies
lose form and meaning
becoming part of a crumbling sidewalk,

You might see a round grey pebble
of an eye glint before it rolls over
to its rough concrete stomach.

—Linda D. Addison







Paul J. McAuley

Paul J. McAuley is currently working on a very long novel set ten million years in the future. The first volume, *Child of the River*, was recently published by Avon, and the second, *Ancients of Days*, is forthcoming. In his latest novella, settlement of our solar system has inevitably brought alterations to environments like Jupiter's frozen Europa. In turn, these alien vistas have had an effect on us. Both transformations are chillingly explored in . . .

SEA CHANGE, WITH MONSTERS

Illustration by Alan Giana

She made it clear that she was taking the job as a favor. Vlad Simonov pretended to be slighted by her reluctance. He said, "But Indira, what's the problem? It's a fantastic job, and it's not as if you are working."

"I have been working," Indira said. "Now I'm resting."

She had spent two weeks supervising the clearance of an infestation of urchins at the perimeter of a farm collective. It had been difficult, dangerous, tiring work, and she had nearly been killed in almost exactly the same way she had nearly been killed on her first job, when she hadn't really known what she had been doing. She had come full circle. She was beginning to believe that she had killed enough monsters.

Vlad snapped his fingers and leaned close to the camera of his phone. "After that picayune little job, you need to *rest*? That kind of thing, I do as an exercise. I do it for relaxation! I do it in my sleep, after a proper day's work. Listen, Indira, I would take this job myself, it is so good, except already I am committed to three others. So I give it to you. With my usual commission of course, but the terms are so generous you will not notice the little I have kept to take home to feed my children."

Vlad's restless, good-humored energy was apparent even over the phone. Indira laughed.

He said chidingly, "Indira, Indira. You are getting old. You are getting bored. Urchins, spinners, makos, they're all the same to you. Routine, routine, routine. It hurts me to see you like this. So, I put some pep in your life. To make you think again. To make you love life. Say yes. You will have fun, I promise."

"Vlad . . . we are all getting old."

"Not the *monsters*. While you sit around in your nice, warm, comfortable apt, the monsters are swimming in the cold and the dark, pumping sulfides, getting strong. Indira, this is a very exciting job, and the people who commission it are some kind of funny monks who know nothing about the value of money. You will be rich, even after my tiny percentage is removed. They claim it is a dragon, Indira. You have never hunted a dragon, but I know you can do it. That is why I ask only you."

"And that's why I'm taking it as a favor to *you*, Vlad. Because I know no one else will do it."

Indira had started out as an apprentice to Vlad Simonov; now she freelanced for him. He was one of the first generation of hunters, one of the few to have survived the early days of tracking the biowar macroforms, the monsters, which had been set loose during the Quiet War. Vlad liked to project a buccaneering image. He had two wives and five children. He drank brandy and smoked huge cigars. He had a wild mane of black hair with little lights spidering inside its curls. But there was no safer or more cautious hunter in all of Europa's ocean.

She said, "A dragon."

"*Perhaps* a dragon. Are you scared?"

"I'm always scared."

A pod of urchins had ambushed her toward the end of the last job. She had been finning down a long flaw in pure water ice, leading her diving buddy, a nervous farm worker. The flaw had been polished smooth by methane seep. It had reflected her lights in a blue-white glare that had prevented her seeing very much of what was ahead. The urchins had fallen down on her from a crevice. She had doubled up, knocking two urchins off her face mask—their

spines left deep scratches in the glass—and had started firing her flechette pistol even as she kicked backward. Her diving buddy had been frozen in fear, blocking her escape; the urchins had bobbed toward her through a dancing dazzle of reflected light. She had coldly and methodically killed every one of them in a Zen-like calm that had thawed to violent trembling as soon as the slaughter was over.

She told Vlad, "I can't go solo against a dragon. If it *is* a dragon."

He said, "You won't need to go solo. The monks have a big weed farm and their workers will help you. Anyway, it's probably no more than a mako. No one has seen a dragon for years—they're probably extinct. The monks see something lurking just beyond their perimeter and make it bigger than it is. Let me tell you what I know."

Indira's daughter, Alice, came in two hours later. She found her mother in the workshop, with the luggage pod open on the floor. She said, "You only just came home."

"I know, sweet."

Alice stood in the doorway, bouncing up and down as gently as a tethered balloon. Seven years old, smart and determined. She wore baggy shorts and a nylon vest with many pockets and an iridescent flared collar that rose above her head like a lizard's ruff. Fluorescent tattoos braided her thin brown arms. She had changed them since she had gone off to school that morning. They had been interlocking lizards and birds then; now they were long fluttering banners, red and violet and maroon. Her hair was done up in tight cornrows and decorated with little tags that flashed in random patterns of yellow and green.

Alice said, "Have you told Carr yet?"

Indira didn't look up. She was concentrating on fitting her dry suit into the pod, taking great care not to crease it. She said, "He'll be home soon. How was school?"

"I'm doing a project."

"You must tell me all about it."

"It's a secret."

A pause. Indira knew that her daughter had been down to the service levels of the city again, at the bottom of the ice. She had beeped Alice's location after she had finalized the contract with Vlad. And Alice knew that she knew. She watched solemnly as her mother checked the weapon cases. They were flat metal shells with foam plastic bedding inside. The smallest contained three kinds of specific neurotoxin in glass snap-top vials. Indira made very sure that these were packed properly.

At last, Alice said, "Did you know that the city once had another name?"

"Of course."

"It was called Minos. Why was that?"

"Because Minos was one of the sons of Europa. Of Europa and Zeus."

When Alice stamped her foot, she bounced a meter into the air. "I know that! It means creature of the moon. He was the king who built a maze under his palace. But why did it *change*?"

"Politics."

"Oh. You mean the war."

Alice had been born ten years after the Quiet War. Like all of her generation, she couldn't understand why the adults around her spent so much time talking about it when it clearly made them so unhappy.

"Yes, the war. Where did you find this out?"

"I saw a sign."

"A sign? In school?"

Alice shook her head. "Of course not in school. The Goonies—" which was the latest nickname for the soldiers of the Three Powers Occupying Force—"have changed all the signs they know about. But they don't know everything."

"Then where was it?"

Alice said, "Carr will be cross because you're going away again so soon."

"That's because he loves me almost as much as he loves you. Where was this sign, Alice?"

"It's to do with my project. So it's a secret until my project's finished."

Indira closed the luggage pod. It made a little whirring noise as it sealed itself up. She didn't want an argument just before she went away, but she didn't want Alice to think that she could disobey her. She said, "I think we had better have a little talk, you and I."

Later, Carr said, "There's nothing to harm her down there."

"Don't take sides," Indira said.

"I'm not. I'm trying to be realistic. Kids go down there all the time. They like staring out into the dark."

"She dresses like a Ring smuggler. Those lights in her hair . . ."

"All the kids her age dress like that. They get it from the sagas. It's harmless."

"Why are you so fucking reasonable?"

"It's a talent I have."

Indira snuggled closer to him. They had just made love, and were both sweating on the big bed, beneath a simulated starscape. Carr liked to keep their room warm and humid. Bamboos and ferns and banana plants surrounded them. The walls were set to show misty distances above a moonlit rainforest. Carr had been born on Earth. His family had migrated from Greater Brazil to Europa a few years before the Quiet War. He was one of the ecological maintenance team of the city; once upon a time, he would have been called a gardener. He was a strong, solid, dependable man. He and Indira had been a couple for nine years now; several months ago, they had started to buy tickets in the child lottery for the second time.

Carr said, "I think it's nice that she wants to make gardens under the ice. A little bit of me, a little bit of you. Did she show you her drawings?"

"Of course she did. Once we had made up after the argument about her going down to the service levels. All those friendly crabs and fish."

Carr stretched luxuriously and asked the bed's treacher for a glass of water. "Citrus, fizzy, ice." He told Indira, "She wants to think that one day there might be a world without monsters." He took a sip of water. He said, "She wants to be a gengineer."

"She wanted to be a tractor driver last week."

"That was two months ago. She has been asking all sorts of questions about gengineering. She asked me why there weren't any fish out there in the ocean. You know, I think sometimes she tells me things because she knows I'll tell you."

"She's smart."

Carr sipped his water. After a while he said, "Why do you have to go away so soon?"

"Because of a monster. One of the angry fish Alice wants to replace with happy, smiling fish."

"There are other hunters."

"You knew what I did when we met, Carr. That hasn't changed. And we need the money to pay for the lottery tickets."

Carr put his water down and folded his arms around her. The hand which had held the glass was cool on her flank. He said, "I didn't even know there was a nunnery on Europa."

"It's a monastery. For monks. Male nuns. Vlad was a bit vague about them and I can't find anything about them on the net. They're some kind of Christians, but not of any of the mainstream sects."

"Whatever. Tell me again why they can't kill this monster for themselves."

"I think they tried." A silence. She took a deep breath and said, "I haven't told you everything, and it's only fair that you know. Vlad thinks it might be a dragon."

Carr said, "They're extinct, aren't they?"

"The last time one was killed was over ten years ago. No one has seen one since. But absence of evidence—"

"—is not evidence of absence. So Vlad the Impaler wants to send you out against a dragon all by yourself."

"We're not certain it is a dragon. And I won't exactly be alone. There will be the monks."

Indira had met Vlad Simonov almost twenty years before, just after the end of the Quiet War. She had been a construction diver then, helping build the city's first weed farm. Biowar macroforms were getting past the sonar and electrical barriers that were supposed to keep them away from the city's underside, and Vlad had been hired to clear out a nest of urchins. The things had learned to passively drift through the barriers on currents and reactivate in the lights of the construction site. They were etching away support pylons, and in those days there were still a few of the kind of urchin that manufactured explosives in their cores. Two construction divers had been killed.

Indira volunteered to assist Vlad, and they quickly located the place where the urchins were breeding. It was five kilometers east of the weed farm, downstream of the currents driven by the upwelling plume. It was an area of rotten ice eroded by the relatively warm water of the upwelling, riddled with caves and crevices and half-collapsed tunnels, rich in precipitated sulfides. Indira didn't panic when urchins started dropping out of crevices in the ice. They seemed like harmless toys, spiny, fist-sized black balls that wobbled this way and that on pulsed jets of water. She forgot that some could be carrying explosive charges and coolly and methodically killed them with neurotoxin-tipped flechettes, not wasting a shot. Afterward, Vlad said that he liked her style, and that evening they got drunk together to celebrate their victory. She thought no more about it, but a few weeks later he called her up to ask if she would like to help out again.

The engineered biowar macroforms had been delivered to Europa's ocean by penetrator probes during the Quiet War. Viruses had destroyed the food yeasts (and incidentally had caused the extinction of the indigenous microbes that had lived around the hydrothermal vents at the bottom of the ocean); the macroforms had wrecked the yeast reactors, the mines and the cargo submarines, the heat exchangers and the tidal generators.

Earth had not expected to win the Quiet War quickly. The Three Powers Occupying Force had no plans to decommission the monsters they had set

loose, and no one knew how many there were now. They reproduced by parthenogenesis, like certain insects, and they had contained dormant embryos when they had been released. Hunters like Vlad Simonov were the only reliable line of defense against their depredations.

The second job was against a mako that had been systematically destroying mine intakes at Taliesin. Vlad and Indira spent a dozen hours hanging by the probe of one intake, following it as, like a giant articulated proboscis, it moved this way and that in the black water, tracking mineral-rich currents. The mako came in hard and fast out of the darkness, straight at Indira. She held steady and Vlad hit it with his second shot. Afterward, he offered her a permanent job, and she accepted.

She discovered a talent for killing. She got no pleasure from it, except to do it as cleanly and professionally as possible, and it did not diminish the guilt she felt because she had survived the Quiet War and her parents had not. Only time did that. But she was good at killing monsters. She cleaned out hundreds of urchin nests, destroyed infestations of fireworms that had wrapped themselves around electrical cables and caused crippling over-voltages, went up against and killed makos and mantas and spinners. But she had never before had to face a dragon, the smartest and most dangerous of all the monsters.

Indira took the railway west from Phoenix, along Phineus Linea to Cadmus. The scarp stood to the north, an endless fault wall half a kilometer high. It was one of the highest features of Europa's flat surface. Mottled terrain stretched away to the south, textured by small hills and cut by numerous dikes and fracture lines. Lobes of brown and grey ice flows were fretted by sublimation and lightly spattered with small craters. This was one of the oldest landscapes of Europa. The ice here was almost five kilometers thick.

It was early morning, four hours after sunrise. Europa's day was exactly the length of its orbit around Jupiter, and so, from any point on Europa's sub-jovian hemisphere, Jupiter hung in the same spot in the sky, waxing and waning through the eighty-five hour day. At present, Jupiter was completely dark, a glowering circular black hole in the sky that was nearly thirty times as big as Earth's moon. Indira was in the train's observation car, sipping iced peach tea and watching the beginning of the day's eclipse. It would last three hours, and was the nearest thing to true night on the sub-jovian hemisphere, for when the Sun set, Jupiter was full, and there was almost always one or more of the other three Galilean moons in the sky.

There was a sudden flash of light that briefly defined Jupiter's lower edge as the diamond point of the Sun disappeared behind it. Darkness swept across the ice plain; stars suddenly bestrode the sky in their rigid patterns. As her eyes adapted, Indira could make out the flicker of a lightning storm near the upper edge of Jupiter's black disc—a storm bigger than Europa.

Indira talked with Carr. She talked with Alice and told her what she could see, and tried to patch up the row they'd had.

"Carr misses you already," Alice said. She was on one of the slideways of the city's commercial center. "He says he's going to change your room. It's a surprise." She didn't want to talk about her project. When Indira tried to press her about it, she said, "I have to go. This is where I should be."

The train was full of miners. They were all flying on some drug or other. This was their last chance to get high before they returned to work. They were native Europeans, originally from South Africa. They wore leather jack-

ets and fancy high-topped boots over pressure suit liners. One of them played a slow blues on a steel-bodied guitar; another, egged on by his comrades, tried to chat up Indira. He was a young man, tall and very handsome, with very black skin and chiseled cheekbones. He spent more time looking at his reflection in the diamond window of the observation car, ghosting over the speeding, star-lit landscape, than he did looking at Indira. His name was Champion Khumalo. Indira thought that it was a nickname, but no, all his friends had names like that, or names out of the Bible. Trinity Adepoju. Gospel Motlohelo. Ruth and Isaac Mahlangu.

Once Champion gave up his half-hearted attempt to sweet-talk Indira, they all became friends. Indira learnt that two of Champion's brothers went to the same school as Alice. They passed around a bottle of pear brandy and tubes of something called haze. It smelt sharply of ketones and delivered an immediate floating feeling of bonhomie.

The miners were fascinated by her profession. "To clean all the ocean of monsters," Gospel Motlohelo said, "is a noble calling!"

"Well, I don't see why we need to go into the world below," Isaac Mahlangu said. "I have been a miner for thirty years and I have never needed to go there. This is our land, the world all around us."

"But the ocean is part of our world," Gospel said. She was the oldest of the miners. Her iron-grey hair was done up in medusa ropes wound with plastic wire. There were keloid scars on her forehead; because they spent their working lives on the surface, most miners suffered from radiation-induced cancers. She said, "The ocean makes the land what it is, and so it is important to get rid of the monsters that infest it."

"The monsters are from Earth," Trinity Adepoju said. "That's why we have to get rid of them." He was the guitar player, a tall man even for a European, with a ready smile and fingers so long they seemed to have several extra joints as he moved them idly up and down the neck of his guitar.

Indira remembered a conversation she had once had with Alice. She had been trying to explain to her daughter why Earth had won the Quiet War.

"They have more wealth, more processing power, more people. They have used up their world and now they want to use up all the others."

"Then we'll have to do things they can't," Alice had said, so solemnly that Indira had laughed.

Champion said, "Even with the monsters gone, we will still live on Earth's sufferance."

His friends nodded, and began to tell Indira their war stories. Many of the miners had been on Europa throughout the Quiet War. Although the population of the capital, then called Minos (the miners called it that still), had at last been evacuated to Ganymede, the miners had been left in their camps. Most had managed to synthesize enough oxygen from water ice, but there had not been enough food.

"We were so hungry," Gospel told Indira, "that we were thinking of eating our boots at the end of it."

Ruth Mahlangu said, "What are you talking about, woman! You are so vain that you would starve to death and be buried in your boots rather than eat them!"

The others laughed. It was true: Gospel's boots were extraordinary, even for a miner, green suede decorated with intricate patterns made from little bits of mirror and red and gold thread.

There were stories of cannibalism. Several camps had been vaporized by

the nuclear device that had broken through the crust to allow the penetrators containing the biowar organisms to reach the ocean. This was at Tyre Macula, on Europa's anti-jovian hemisphere. Although the area had been lightly populated, the blast had killed more than a hundred miners and had left a flat plain of radioactive ice and radial grooves hundreds of kilometers long: a bright sunburst scar on Europa's mottled brown face.

Indira had heard all these stories before; it seemed that Europeans would never tire of telling and retelling stories about the war. She had stories of her own, but they were all too sad to bear telling. The death of her family, the two years she had spent as an orphaned refugee on Ganymede. At last, she managed to steer the conversation to the monastery.

Champion grinned. "You're going *there*? That's a good joke!"

The miners exchanged words in a language full of glottal clicks. They all laughed, but the young miner would not tell Indira what they found funny.

"They're very rich there, those people," Champion said. "They have a very big weed farm. They supply fixed carbon to half the mines."

"Their leader is a gengineer," Gospel said.

Trinity said, "He calls himself Rothar. I don't think it's his real name. They say he ran from Earth because they caught him doing something illegal. He's probably doing something illegal out there, too."

"Maybe making more monsters," Champion said. "Maybe he makes one monster too many and wants you to kill it."

"They are strange people," Gospel said. "Not Christian at all, although they claim to be. They call themselves Adamists."

This was more than Indira had managed to glean about the monastery from the net. The miners didn't know many hard facts, but they had plenty of gossip. Their talk grew lively and wild. Three hours after the beginning of the eclipse, the double star of Earth and Venus rose above Jupiter's dark bulk, and then the Sun followed and flooded the ice plain with its light. Trinity took up his guitar again and had half the observation car singing along by the time the train reached Cadmus.

Cadmus was an industrial settlement, several clusters of stilt buildings, storage tanks, a big spaceport that was essentially an ice field pitted with black exhaust blasts, the long track of a mass driver. Indira caught a few hours rest in a rented cubicle. Before she fell asleep, she talked with Carr about the small change of his day. Alice was sleeping. She missed her mother, Carr said.

"I miss her too."

"Be careful," Carr said.

Soldiers of the Three Powers Occupying Force were much in evidence. Two officers were talking loudly in the canteen where Indira ate breakfast, oblivious to the resentful stares of the miners around them, and she had to endure a fifteen minute interrogation before she could board the rolligon bus that would carry her to the monastery of Scyld Shield.

The journey took ten hours. As the bus traveled west, the diamond point of the Sun descended ahead of it, while Jupiter hung low in the east—Indira had traveled a long way, a quarter of the way around the icy little moon. Jupiter was almost full, banded vertically with the intricately ruffled yellow and whites of his perpetual storms. Their slow churning was visible if Indira watched long enough. Io's yellow disc fell below the horizon and an hour later rose, renewed.

The road was a single track raised on an embankment above a wide plain of crustal plates. Some were more than ten kilometers across; most were much smaller.

Changes in currents in Europa's ocean had broken the plates apart again and again, rafting them into new positions. It was like crossing the shaken pieces of a jigsaw puzzle of simple Euclidean shapes. You could see here that the surface of Europa was a thin skin of ice over the ocean, as fragile as the craquelure on an ancient painting. Triplet ridge and groove features cut across the plates. They were caused by the upwelling of water through stress fractures. The ridges were breccia dikes, ice mixed with mineralized silicates, complexly faulted and folded; the grooves between them were almost pure water-ice. They were like a vast freeway system half-built and abruptly abandoned, cut across where the ice plates had fractured or had been buried by blue-white icy flows that had spewed from newer fissures.

The road the bus was following crossed a groove so wide that the ridge on one side disappeared over the horizon before the ridge on the far side appeared. Beyond it, geysers powered by convective upwellings had built clusters of low hills that shone amidst patches of darker material.

Like Io, Europa's core was kept molten by heat generated by tidal distortions that pulled it this way and that as the moon orbited Jupiter; heat leaking through underwater vents and volcanoes kept the ocean from freezing beneath its icy crust and drove big cellular currents from bottom to top. Cadmus was at the edge of the Nemo Chaos, where a huge upwelling current kept the ice crust less than a kilometer thick. The same upwelling currents that eroded and shaped the icy crust brought up minerals from the bottom of the ocean. It was why the miners were there. Indira saw a solitary cabin crawling away toward the horizon, its red beacon flashing. Every twenty or thirty kilometers, the bus passed the drill-head of a mine, with one or two or three cabins raised high on stilts like so many copies of Baba Yaga's hut. The mines pumped mineral-rich water into huge settling basins. Vacuum organisms grew on the ice and extracted metals, and the miners harvested them.

Alice called Indira. She was enthusiastic about her project. Indira pretended to be enthusiastic, too, but she resolved that she would talk with Alice's monitors when this was over. Her daughter's education was taking a direction she didn't like.

"Spend some time with Carr," Indira told Alice. "Help him out."

"I don't like the flowers. Some of them make me sneeze. And the light is too bright in the greenhouses."

"It helps them grow."

"The weeds don't need light."

"That's because they don't photosynthesize."

"I know that. They're—" Alice scrunched up her face and said slowly and carefully—"chemolithotrophs. They absorb the chemicals in the water and make biomass, which we eat."

They talked about the metabolism of the weeds for a while. Alice promised that she would ask Carr about photosynthesis. She said that she was doing some gene splicing in the garden labs, using the cell gun. Indira was encouraging. The more time Alice spent in the labs and the gardens, the less she spent skulking around the lower levels of the city.

The bus had low priority and had to keep pulling into laybys to allow trucks to pass. Indira was its only passenger, and its first for several weeks.

It seemed that very few people went to Scyld Shield. The bus grumbled that the monks weren't friendly.

"They tell me to be quiet, and it is a long drive out. I like to talk. It's part of my personality design." The bus paused. It added, "I hope you don't mind talking with me."

"What do you know about the monastery?"

"It was a mine, before the war. The monks have built around the old shaft. But of course, I have never been inside. They don't have a garage. If I broke down, someone would have to come all the way out from Cadmus. It's irresponsible, but that's the way things are these days in the free market economy. No one wants to pay for the upkeep of publicly owned infrastructure."

Someone had probably dumped a bunch of anti-libertarian propaganda in the bus's memory. Indira was sympathetic, but hastily told it that she wasn't interested in discussing politics. There was a silence. At last the bus said:

"Many of the trucks come from the monastery. They supply huge amounts of cheap fixed carbon. Glycogens, proteins, cellulose, starches. They supply the bioreactors of most of the mines in this region."

"There must be a lot of monks in the monastery."

"I wouldn't know," the bus said. "Only two of them regularly travel to and from Cadmus. The rest keep themselves to themselves."

Which was what the dispatcher at the bus garage had told Indira. She could have called Vlad Simonov, of course, but she had her pride.

The Sun set. Jupiter's hard yellow light spread across the ice plains. Io had disappeared behind him; a few of the brightest stars had come out. Ahead, something briefly glittered on the horizon, vanishing before Indira could see what it was. The bus crawled on, and an hour later, Indira saw the fugitive glitter again, much closer now. A plume of gas, shining in Jupiter's sullen light.

"There she blows," the bus said.

"What is it?"

"Scyld Shield's methane vent," the bus said. "Most of the mines around here have them."

"Of course."

Methane bubbled up from the hydrothermal vents and collected under the ice crust, occasionally breaking the rafts apart as it escaped through fault lines. Mines vented excess methane to keep themselves stabilized. The methane dispersed, of course, for at -150°C Europa's surface was just above its triple point, but the vent had deposited drifts of dirty white water snow across a huge polygonal plate. The monastery was on a ridge of brecciated ice beyond.

It was not as large as Indira expected, no more than a single silvered dome. The bus took a spur off the main road. It climbed a winding switchback up the face of the ridge and dived into a wide apron hacked out of an ice bench, where half a dozen tanker trucks were parked in front of a mass of insulated pipes, presumably taking on loads of raw biomass. The bus reversed onto a airlock coupling and said goodbye to Indira.

"I'll be back in three days," it said. "I come here every three days even when there isn't anyone who wants to ride. That is, if I don't break down. Perhaps you can tell me about the monastery when I take you back to Cadmus."

The luggage pod followed Indira through the freezing cold flexible coupling into a big, echoing, brightly lit room. Two monks were waiting there. Both wore black robes and a kind of cowl around their heads, topped with square

headdresses. Both had untrimmed patriarchal beards, with big pectoral crosses hung over them. The older monk was impassive, but the younger was the first man Indira had ever seen do a double-take in real life.

They had been expecting a man. Sending Indira had been Vlad Simonov's idea of a joke.

The two monks left Indira with her luggage pod in the middle of the big, empty space. There were marks on the concrete floor that suggested that it had once been partitioned into many small rooms. A gutted air compressor sat in one corner. She sat down on the pod and tried to call Carr, but her phone wasn't getting any signal. It was so cold that the smoke of each breath crystallized into a floating frost with a tiny tinkling sound, too cold to sit still and wait.

She began to prowl around. The empty room took up half the dome; a corridor looped around the other half, with little rooms opening off on either side. None showed any sign of recent habitation. There were two service tunnels. One led downward, curving out of sight; she had just opened the door of the other, its ribbed wall rimed with ice and stopped with a locked hatch, when the older of the two monks found her. It seemed that Brother Rothar, the abbot of the monastery, would talk with her.

The old monk's name was Halga. Indira asked him about the other tunnel as they walked down, and he said that it led to the old mine structure, which had sunk into the ice after it had been abandoned during the war.

"We cut a tunnel to it to see what we could salvage. Now we use it for storage."

"I didn't mean to pry. I was just looking around and wondering where I should stow my gear."

"I think you should talk with Brother Rothar," the old monk said.

"Is there a problem?"

"Brother Rothar will explain."

The tunnel wound down a long way. Indira realized that the monastery was like a pin piercing the ice—a pin a kilometer long, with the dome at its head and a winding series of chambers and passages built around its shaft. Brother Halga explained that the whole structure had been synthesized from glass and silicates extracted from the brecciated ice and bound together by diamond wire. Indira wondered how often they had to adjust the shaft because of stress in the icy crust, and Brother Halga told her that the monastery was built on a breccia intrusion that went almost all the way down to the ocean.

"The surface is covered with ice, but a hundred meters below the surface it is quite stable."

The old monk had a mild, diffident manner. He did not look at her when he spoke.

She said, "I don't mean to make you uncomfortable by asking all these questions."

"We are not used to people like you. To women, I mean." His brown face, framed by the black cowl, darkened. He was blushing.

They walked on in silence, and at last took a side corridor whose walls, floor, and ceiling were covered in thick red fur. The air was at blood heat. Double doors at the end were covered in some kind of hide, dyed the same red as the fur. Brother Halga opened them, ushered her in, and announced her to the man who stood at the far end of the dimly lit room.

"Brother Rothar," the old monk whispered, and stepped backward and pulled the double doors shut behind him.

On one side of the room, shelves holding printed books stepped up into darkness. On the other, a stone wall was muffled by an ancient tapestry: an enlarged reproduction of a section of the ceiling of the Vatican's Sistine Chapel, God reaching out from the clouds to a casually reclining Adam. At the far end of the room, a man was standing in front of a huge fireplace, watching a bank of holos that floated in the darkness to one side. The fireplace was as big as an emergency shelter and held an actual, real fire. The flames crackled and danced above a bed of white-hot pressed carbon chunks and sent little licks of aromatic smoke curling over the monumental lintel, and firelight beat over the Persian carpets that layered the floor.

Indira had been told that the monastery was wealthy, but she had not realized *how* wealthy.

"Welcome," the man said. His voice was subtly amplified. It boomed and rolled, mellow as good whisky, around the corners of the sumptuous room.

He was an old man, thin and straight-backed, with a shrewd, hawkish face. His dusty white skin was marked with dark blotches. He wore the same black robes as the monks, but instead of a cowl, his bald pate was covered with a black skullcap on which molecular shapes were embroidered in gold wire. Heavy gold rings extended the lobes of his large, papery ears.

"I have arranged for some food," he said.

He crossed to the side of the fireplace, tracked by a spotlight that came on somewhere high above, and pulled a Florentine chair from a little burred walnut table. A plastic tray of food was set on the table: a sloppy puree of some kind of green leaf; a slab of gelatin seamed with chunks of uncooked vegetable; dry salty biscuits. A plastic beaker held pure water.

Rothar watched Indira push the puree around and said, "The same food is served in our refectory. We are an ascetic order."

He gestured, and one of the holos floating to the side of the fireplace inflated. It showed a view looking down on a refectory in which about a hundred black-robed monks sat in rows, ten by ten, along white plastic tables.

She said, "I ate at Cadmus, and then on the bus. This isn't quite—"

"What you expected? No. It is not what I expected, either. And there is the problem."

The holo shrank back into the array. Others showed views of a weed farm that seemed to stretch forever. Indira realized that Rothar was showing off. This room; his army of monks; the vast farm.

Rothar said, "I have been trying to talk with Vlad Simonov about this . . . problem. But he is nowhere on the net."

He was rubbing his hands over each other. She noticed that when he thought she wasn't looking at him, he made little grabby glances at her body. She wished that she had worn something over the skintight suit liner.

She said, "Vlad is working at a mine on the anti-jovian hemisphere. He's probably under the ice. What is this problem? When do I start to work? Perhaps I can see the echo traces, and any video you have."

When Rothar looked at her for a moment, she added, "Of the monster. The monster I've come to kill."

"Ah. Now. I'm afraid that there has been a misunderstanding."

"A misunderstanding? You have reported a Dragon Class biowar macroform in your area. You made a contract with Vlad Simonov, and Vlad sent me."

"There is the misunderstanding. You see, we did not expect him to send us a woman."

"One of Vlad's little jokes."

"A very embarrassing joke for both of us, Ms. Dzurisin."

"That's between you and him. Meanwhile, I have a job to do."

"I'm afraid not, Ms. Dzurisin. I am revoking your contract."

Indira sat back in the chair and stared at Rothar, who still would not meet her gaze. It came out slowly. Rothar did not want her to hunt the dragon. The monastery was forbidden to women. The bus would return in three days; she would leave then.

"Meanwhile, we cannot work our farm," Rothar said. "It will cost us a great deal of money. We are very angry with Mr. Simonov."

He did not seem angry; he had not raised or varied his voice at any time during the interview. He added, "I have arranged for accommodation. Breakfast will be brought to you tomorrow. Expect it at six o'clock."

"You really do want me out of here."

"We are a contemplative order. We rise early. By the time you receive your breakfast, we will have already celebrated our first service. We will serve you at the same time that we eat."

She said, "I need to tell my family about the change of plan, but my phone isn't working."

"Something to do with the structure, I understand."

"Then perhaps I could plug into your net. Or are you cut off here?"

"I suppose that you could go outside," Rothar said. A pause. He added, "You will be quite safe here. We have been freed of the normal Satanic lust that blinds men. Not by chemical or physical castration. Both are unreliable and have unsatisfactory side-effects. And, of course, chemical castration would involve use of those very hormones that taint you and your kind. No. We have all submitted to nanosurgery that has isolated the neurons that control the lordotic response. We are incapable of being tempted because we are incapable of arousal."

Indira stared at him. "I see," she said, although she did not understand why he had told her this. Unless it was another form of boasting. At last she said, "I still want my fee."

"Of course. We would not dream of reneging on the contract. Goodbye, Ms. Dzurisin."

Rothar made no signal, but at the far end of the room, Brother Halga opened the big double doors.

The old monk took Indira back up the helical tunnel and left her in one of the dome's empty cells. It was as spartan as the room in which Indira had lived with her foster parents in the refugee center on Ganymede, three meters long and two wide, a bare concrete floor and fiberboard walls sprayed with thick resin, the only furniture a fold-down shelf bunk and a combination shower and shit-stool. Brother Halga assured her that it was like all the other cells in the monastery. If that was true, then no wonder Rothar could afford a real fire, all those old books, the ostentatious decor. Like any other pseudo-religious sect, the devotees did the work and the leader got the gold.

Her phone still wasn't working. And she could not lock the door of the cell. She left the luggage pod outside and told it to keep watch, but found that she could not sleep. It was too cold and she could not switch off the light, only dim it. And something somewhere in the dome made a roaring noise at unpre-

dictable intervals, shutting off with an explosive bang and a dying series of rattles that emphasized the unnatural silence that followed.

Memories of hiding in the city's service tunnels crept around the edges of her consciousness. She resisted them.

The whole thing was ridiculous. An order of misogynist monks, a megalomaniac leader who was quite possibly a mad scientist, a secret passage. And a monster, of course, haunting the vast dark ocean at the basement of the monastery. . . . It was like one of those old gothic sagas.

The monks had some kind of religious phobia about women. Fine. Europa was big enough for all kinds of eccentrics. The original charter, drawn up by the first settlers and suspended but not revoked after the Quiet War, had expressly allowed freedom of belief and speech. Let them get on with their devotions; maybe they could keep off the monster by prayer alone.

It was nothing to do with her. And yet, of course, it was. Rothar's cold indifferent dismissal had cut her deeper than she liked to admit.

She tried the phone again. Still no luck. It was two in the morning, and she knew that she would not sleep now. She decided to go outside and try her luck with the phone there, and opened the door and told the luggage pod that she needed her pressure suit.

Indira supposed that the airlock was monitored, but found that she didn't care. She crossed the brightly lit apron, where the trucks squatted over their shadows all in a row, like supplicants, and left the road and climbed to the top of the ridge. Jupiter sat at the eastern horizon, exactly where he had been sitting when the bus had arrived. A crescent of darkness was eating into the bottom of his disc. His yellow light tangled long shadows across the rough, dark ice.

The phone still wasn't working. Indira went a long way, in long easy lopes that barely touched the ground, until, about two kilometers out, the phone suddenly woke and started scanning channels. She had to go another kilometer before she could get a steady signal.

It was half past three in the morning. It was half past three in the morning all over Europa. No one had been able to divide the moon's 85.2 hour day in a sensible way, so Europeans kept universal time. Indira left a message with Carr's avatar, saying that she was fine but the job hadn't panned out, and she would be coming back in a couple of days. She put a priority call to Vlad, and his avatar made various excuses until she cut it off and said, "This is an emergency. *I'm flying the black flag.*"

Which was the ridiculous piratical code phrase that gave access to the less public of the avatar's functions.

The avatar, which looked exactly like Vlad, down to the tiny lights crawling in its bushy black hair, suddenly froze in the little window in the upper right-hand corner of her helmet's visor, then reformatted. It said, in a voice that was clipped and neutral, now not Vlad's at all, "Of course, *druzhok*. What do you wish me to do?"

The avatar could not contact Vlad—he really was working—but it was able to give her some more information about the Adamists. As the miners had told her, Rothar was some kind of gengineer. His birth name was Gregory Janes. He had been born in Canberra. Presently he was claiming asylum as a political refugee in the occupied territory of the Outer System. He had been working for the government of Earth's Pacific Community, but precisely on what was obscured by contradictory rumors, most of which were almost cer-

tainly black propaganda. There was speculation that he had worked on the biowar macroforms before the Quiet War, and that the monastery was able to supply so much biomass because he had improved on the productivity and growth of standard weeds.

Rothar had not founded the Adamists, but had taken them over after the death of the charismatic mystic whose acolyte he had become—another crime lurking there, perhaps. The Adamists were an extremist separatist group, the kind that only the pressure cooker of Earth could have evolved. Their creed was simple. They believed that God had created Adam and Lilith as the first of a race who would worship God on Earth as angels did in Heaven. But Lilith had been murdered by Satan, who had then created Eve by ripping a rib from Adam while he had been sleeping. All men since Adam had been tainted by Satan's mark, fallen but redeemable; all women were the handmaidens of Satan. The avatar told Indira that much of the Adamists' creed was mixed up with considerable misuse of genetics, involving the Y chromosome and homeoboxes, and asked her if she wanted a précis. She told the avatar to skip it. She had heard enough to know that she was glad Rothar didn't want her to work for him.

"And tell Vlad that I'll see him when I get back," she said. "We'll have a lot to talk about."

She had kept walking as she talked with the avatar, along a folded ridge above the silver dome that capped the monastery's shaft (and the shape of the monastery, she thought, was as graphically symbolic as the tapestry in Rothar's palatial office). The regolith here was gravelly, marked with tracks and the cleated prints of boots, scored and ridged with fretted humps of bare ice. She had begun to follow a road, she realized, a wide road that had once taken a lot of traffic.

Europa's surface was one of the youngest in the Solar System. Every part had been flooded and reflooded by eruptions of water and slush ice from the ocean that covered the moon from pole to pole beneath its icy crust; Europa had very few craters because most had been buried or eroded by the constant resurfacing. The landscapes of Mars were billions of years old and the planet was covered in gardened regolith—debris from meteorite strikes—to a depth of more than a kilometer. Ganymede's much younger regolith was merely meters deep; Europa's was no more than a few centimeters. But like any moon with almost no atmosphere, the ordinary processes of erosion were so slow that they might as well be non-existent. A footprint could last a million years before it was erased by micrometeorite bombardment.

And so it was here. Indira had stumbled upon the road that had served the original mine. All around, the surface was marked by dozens of years of activity. Parts of the road had been worn through to ice; the ice had been eroded into knobs and long slides, shot through with cracks and columns of bubbles frozen into place. They glittered like diamonds in the helmet light of Indira's pressure suit, diamonds glittering up at her wherever she looked.

She still had a couple of hours before she was due to be woken. She did not relish spending it in the spartan cell of the creepily uninhabited dome. Instead, she decided to explore.

The suit's radar soon gave her the location of the old mining station; it was below her, buried in the ice. It had probably been built on some kind of insulated raft with superconducting thread dispersing waste heat to radiators in the ocean far below, and its systems must have been left running when it had been abandoned. Presumably, its owners had expected to return in a few

weeks. But something—perhaps a quake caused by the Tyre Macula nuclear device—had deflated its insulating raft, and perhaps some biowar macroform had destroyed its heat sink. The dome had sunk slowly through ice melted by its own waste heat.

Indira was tracing the perimeter of the dome when her proximity alarm beeped. A moment later she saw a figure duck behind a fold of ice. Someone was following her.

She circled around, keeping as low as the pressure suit would allow. No sign of the figure, either visually or on radar. She crossed the old road again, crept in toward the place where she had last seen the figure.

A square hole had been cut into the ice, and steps led down into darkness. The monks had excavated the old entrance and later reburied it, but a stress fracture had collapsed and partly reopened the long, steep shaft. Indira climbed over a flow of glassy ice and found the airlock.

It was still operational.

The mysterious figure could be behind the door. What the hell. She cycled through.

The airlock walls had been deformed by the pressure of the ice into which it had slowly sunk, but someone had sealed up the cracked seams with swathes of black resin. There was air beyond it, the usual seven hundred millibar nitrox mix of European habitats, but Indira kept her suit sealed. It was very cold, -50°C, although not as cold as the surface. If the monks had wanted to store things, they could have just left them outside the dome. Unless they were things that would be damaged by vacuum ablation. Unless they were things that the monks didn't want others to see.

Speculating about just what those things might be, senses alert for any sign of the person she had followed, Indira wandered through the old mining base.

It had been abandoned in a hurry. Perhaps its crew had spotted the incoming missile whose nuclear warhead had blown a hole in the crust to the northwest.

Metal equipment lockers lined the corridor that led away from the airlock. Their locks had been cut out and their doors hung open. There was a big rec room in what must be the center of the dome. Food boxes were stacked along one wall; broken furniture along another. Ice crystals had gathered here and there in little drifts, crunching under her pressure suit's boots like dry beach sand. Overhead, the curved ceiling groaned and creaked: the structure was compressed all around by the ice into which it had sunken.

The dormitory corridor was littered with paper and infoneedles. The rooms were as small as the cell Indira had been assigned. She looked into one. It was half-filled with a shocking intrusion of ice, its surface glistening blue-white and smoothly sculptured like a muscle flayed of skin, its depths dirty with suspended silicates. In the next room, bedclothes were frozen with the impress of the man who had last slept there twenty years ago. His clothes were still scattered on the floor, stiff and sparkling with frost. Posters of lithe young women scaled the wall. One pin-up stirred against a feeble backglow. She cupped her breasts and began to say something, then froze and rastered back to the beginning of her cycle and stirred again.

As she turned away, Indira heard something above the poster's scratchy entreaties and the creaking of the stressed dome. Footsteps were coming along the curving corridor—then a beam of light slashed through the air, turning suspended ice crystals into fugitive diamonds! Somehow, the person she had been following had managed to get behind her.

Fearing a trap, Indira dodged clumsily back into the room. In her bulky pressure suit, she was like a monster intruding on a child's bedroom. The poster lit up again, and she tore it down and wadded it in her stiff gloves until its scratchy voice died. She killed her helmet's light and hunkered inside her suit, listening intently, her heart beating quickly and lightly.

She had hidden from the soldiers of the Three Powers Occupation Force when they had begun to evacuate Minos. She had been eleven, as stubborn then as Alice was now. The city had been a prime target for the biowar macroforms. Its heat exchangers and its turbines had been destroyed, its yeast reactors had been poisoned. With no food, no power except feeble battery power, and its environmental cycling running out of control, Minos had surrendered while the rest of Europa was still notionally at war. Indira had hidden during the evacuation because she had been possessed with the romantic notion that she would join rebels who in reality were little more than an invention of the Occupation Force's black propaganda unit.

She had been found, of course, but she had missed boarding the heavy lifter that had evacuated the rest of her family. And which, in the long slow orbit between Europa and Ganymede, had been crippled by an explosion in its antimatter pod and lost all power. Its crew and passengers had either suffocated or died of cold. Indira hadn't known about that until she had arrived at Ganymede. She had spent the two years as a refugee convinced that she had killed her parents.

Now her suit's microphone picked up the sound of footsteps, boots rattling loudly on plastic tiles whose adhesive had given way in the intense cold. Going past, dying away.

Indira stayed in the dark for two minutes, then cracked the door. Dark and silence beyond. She used infrared to track the footprints of whoever had been following her. One set, leading away down the curving corridor.

The airlock must have been alarmed. Someone had come to check. To look for her.

A new section of corridor had been roughly welded to an opening cut in the dome's skin. Metal stairs led down. As Indira descended, her suit reported that it was growing warmer, a strange inversion given that warm air should rise. But then she reached the high-ceilinged corridor at the foot of the stairwell and discovered the heat engines that crouched on either side, humming laboriously, their coils shining with frost. Heat was being pumped out of the dome and transferred . . . where?

To somewhere behind a dog-latched door with the universal trefoil symbol for biological hazard in black on fluorescent orange.

Indira hesitated only for a moment. She was still fully suited. If she was exposed to any biological agent she could sterilize her suit by returning to the near-vacuum and -150°C of Europa's surface.

The heavy metal door was latched but not locked. Its seals gave only momentary resistance. It swung open on its massive hinges and she stepped over the sill.

It was an airlock. She waited while it cycled. When the door on the far side opened, her suit's temperature sensor registered a sudden rise of fifty degrees as air gusted unfelt around her, and lamps came on in the big room beyond. They hung from chains under the high ceiling. They registered only in the infrared. Indira swept the beam of her helmet's light from side to side. Beneath the lamps were rows of big square tanks linked by grey plastic pipework, crusted with yellowish salts and holding various levels of still, black water.

Seawater; she realized, the salty, sulfurous water of Europa's ocean. The temperature was just above zero. The air was 90 percent nitrogen and 10 percent carbon dioxide, with traces of hydrogen sulfide, sulfur dioxide, and hydrogen.

All of the tanks were empty. The recirculating pumps were switched off; the incubators ranked along one wall held only racks of flaccid salt-crusted plastic sleeves. The tiled workbench that ran along one wall was marked with chemical stains and the places where machines had once rested. A brown glass vial had fallen behind a strut; Indira turned it over in her clumsy gloves, smudged frost from its label. It had held the mixture of restriction nucleases and DNA ligases that was commonly used to insert genes into bacterial plasmids for cloning, either for identification of gene product or use in engineering.

Indira secured a sample of water from one of the tanks and went out through the lock on the other side of the room. It cycled her into a long, rising corridor. At its far end, she stepped through an open hatch and found herself in the curved corridor of the dome which capped the monastery. Down the curve of the corridor, a red light flashed insistently. It was the emergency beacon of her luggage pod.

Without prompting, the luggage pod said, "Several people came after you left. They tried to open me. I responded with a class two defense as specified in subsection two paragraph three of the—"

Indira set the helmet of her pressure suit on the floor and said, "What did you do, exactly?"

"I activated my alarm and gave two warnings. After these were ignored, I passed a high amperage, low voltage current through my outer frame. One of the men who was trying to force me open was rendered unconscious."

"Did they manage to open you?"

"Of course not. After I defended myself, they went away." The pod added, "Two of them had to carry the man who had been incapacitated."

"By incapacitated, do you mean dead?"

"The shock was sufficient to cause unconsciousness but not death in a healthy adult human, as specified in subsection—"

"You've probably landed me in a whole world of shit."

The pod said that it did not understand this remark.

"Trouble."

"I am sorry," the pod said. "I had believed that I had contained the problem."

"Open up. I need to stow my pressure suit."

By the time Brother Halga appeared, to announce that Rothar would speak with her again, Indira had desuited and run the sample of water through her chemical sniffer. Brother Halga did not mention the attempt to open the luggage pod; neither did Indira.

As before, Rothar was standing in front of the roaring fire. If the room was a symbol of his power, then the fire was its focus. Her breakfast waited for her on the little table. Gruel, watery coffee, and a sticky, pale yellow liquid that was, Rothar said, mango juice.

Her pressure suit could supply better food, but she drank the coffee to be polite. It was weaker than any of the excuses she had made up, as she had walked down the helical corridor with Brother Halga, to try and explain why she had trespassed in the old mining station.

"You will work for me after all," Rothar said. "There have been . . . developments."

"I'm not sure that I want to. And surely a man would be better than a mere woman."

"Ah. You have been researching us."

"A little. But I only need to know a little to realize how much I dislike the entire idea of you and your crew."

Rothar smiled. He had small, widely spaced teeth, like those of a young boy prematurely grown up. He said, "We do not despise women. We pity them, as we pity all of humanity. We are a contemplative order that prays for redemption from the mark of Satan that is imprinted in each of our cells."

"That's very nice of you."

His smile went away. "You will work for us, Ms. Dzurisin. Or forfeit the penalty clauses of the contract you have already signed."

"From which you released me."

"Only verbally. Do you have a recording? I thought not. Then you have no proof that it ever took place."

"For a holy man, you don't set much store by the truth."

"None of us are holy, child. And besides, a small lie will sometimes serve a higher truth."

Which could justify anything, Indira thought. No wonder religions had caused so much trouble on Earth.

Rothar said, "It should not take long. You are an experienced hunter, and I will provide experienced divers to help you. We have men here from all trades. We aim to be self-sufficient. By the way, I hope our laboratory impressed you."

Indira looked at Rothar but said nothing. If he wanted to accuse her, she could accuse him of trying to tamper with her equipment. She had a pretty good idea of what the monks had been after. And there was the matter of what she had found in the water sample from the laboratory.

"We no longer use that facility," Rothar said, "but it has provided the basis of our farm's profitability. Which is why—" his smile came back—"we will have to search you thoroughly after you have finished. Whether you catch the monster or not."

"Oh, I'll catch it."

Meaning, I'll show you what a woman can do, and shame you for your presumption that I'm less than you are merely because of my sex.

She didn't put the two things together. Her discovery, Rothar's about-face. After all, the story about the weed was entirely plausible; he couldn't know that she had evidence that he must be lying. She thought that it was a matter of pride. His. Hers.

The two men who had been assigned to accompany her, Brother Fergus and Brother Finn, were competent and professional, but did not bother to hide their disgust at having to work with a woman. Fergus was dark and wiry and nervous; Finn was blond and burly and quiet, and one of the tallest men Indira had seen, overtopping her by half a meter. His head, covered with the hood of his dry suit so that only his face showed, was as big and bumpy as a boulder. His beard was white, and as fine as cornsilk; like Fergus's, it was done up in a kind of net. Both monks made it quite clear that they thought that this duty was an insult to their dignity. Neither offered any information about the dragon. No sonar signals, no video grabs, no chemical traces.

"We know it is there," Finn said.

"Still, I would like to see what evidence you have," Indira said. "It would confirm that it is a dragon. The neurotoxins I use are class specific."

"It is a terrible monster," Fergus said. "That's all you need to know. We can no longer work the farm because of it."

He folded his arms defiantly. They were suited up and sitting in the pressure chamber. Finn and Fergus wore black dry suits and black stabilization jackets; Indira's suit was white, her stab jacket yellow. Their scooters made the chamber crowded; they had to rest their feet on them. They were ready to go, but Indira insisted on talking first. She wanted to establish a plan of action and emphasize that they must stick to it. She did not trust them. She had filled her air-tanks herself, and done all her suit checks alone.

Finn said, "We know where its lair is."

"Lair?"

None of the big macroforms lived in the ice. They were creatures of the open water, spending long periods drifting in upwelling plumes, fixing carbon and storing energy for their attacks. And occasionally reproducing. They had been designed to operate for years—overdesigned, as it turned out. The Quiet War had been a rout.

"It lives in the ice," Finn said.

"Near the farm," Fergus said.

They were a double act. The idea appeared to be to give away as little information as possible. It didn't matter. Indira had worked with less—although of course she had never worked against a dragon.

"We can do most of the work," Fergus said.

"In fact," Finn said, "if you give us the neurotoxins we can do it all."

Neurotoxins were the major expense of hunting monsters. They had been tailored to specific classes of biowar macroforms by the wizards who had engineered them. They were bought on license from the Three Powers Occupying Force, and only hunters were licensed to use them. Grey chemists had tried to isolate the specifics, but they were mixed with several thousand closely related chemicals. Indira had guessed that the vials of neurotoxin were what the monks had been trying to take from her luggage pod when it had zapped one of them. Having failed to get the neurotoxins, they were stuck with her.

"I have already caught and killed one like it," Finn said, deadpan.

"She doesn't need to hear that," Fergus said, with sudden violence. "You were told—"

Finn punched him on the side of the head and the little monk banged against the steel wall of the airlock and shut up, although he glared at Finn with genuine hatred. But Finn was smiling at Indira. He had about a hundred teeth, as gleaming white as an ice cliff. His blue eyes glittered with psychotic intensity.

He said, "I really did. Do you want to know how?"

Indira laughed.

"You're making a fool of yourself," Fergus said, and flinched when Finn stuck his massive fist in front of his face.

Finn said, "I didn't have any fancy gear. No nets or shock bombs or toxins. I fought it one on one. We fought for days. The water boiled with the fury of our struggle. It took me down to the bottom of the ocean, thinking it would crush me and drown me. But I was too strong. It tried to escape then, but I held onto it. I broke open a vent and seared off its fins and its teeth with the lava that spewed out."

As he spoke, in a low voice as monotonous as Rothar's, he brought his face closer and closer to Indira's. His pupils were huge, so that his eyes were all black and white. Sweat stood out like oily droplets on his smooth, pale skin. His breath smelled bad: acetone, butanol, sweet rot.

Indira was sure that he was flying on something. Perhaps drugs were part of the devotions of these strange, sinister monks. She said, as calmly as she could, "That's a good story."

"It's the truth," Finn said. "You don't believe it but that doesn't mean it isn't true."

"We don't know how many are out there," Fergus said. "No one knows how often they reproduce. There could be hundreds out there. Thousands."

"We didn't need to bring anyone in," Finn said, still staring at Indira. "I can handle it."

Indira thought of the tanks in the laboratory under the old mining camp. The analysis had showed traces of metabolites and degradation products consistent with the presence of animal metabolism, although her sniffer had not been able to identify the type of animal. Perhaps Finn had caught a monster. Perhaps they had kept it in one of the tanks they had used to develop their strains of weed, although she doubted that it had been a dragon. A spinner, perhaps a juvenile mako. But not a dragon; even a newborn dragon would have torn up the lab. But why hadn't they simply killed it? What had they used it for?

Fergus leaned over and dared touch Indira's knee. His black eyes were liquid with what Indira thought was genuine concern. "He gets wired up," he said. "Don't worry. We'll look after you."

Finn said, "No more talk. We go."

Indira told him to wait. She had already checked her equipment, but now she wanted to check it again in front of the two monks, to show them what she had, to show them that she meant business, to puncture their contempt. The spear gun with its hollow tipped spears. The taser. The percussion bomblets, the sticky bomblets, the flares. The diamond mesh drift nets. The sonar. The motion detector. The sniffer.

Both monks watched her closely, but said nothing. They carried nothing but ordinary spear guns and knives; a pouch of the kind of explosive charges used by construction workers hung from Finn's harness.

"All right," she said at last. "Let's do it."

Fergus allowed a little water in. Although it was filtered to remove its chemical load, it still had the rotten egg stench of hydrogen sulfide. Indira could feel its cold through the layers of her suit.

They busied themselves in the small space, rinsing their face masks in the water and then spitting in them and rubbing the spittle over the inside of the glass of the visors so they would not fog up, checking the seals of their hoods and the straps that fastened the fins to their feet, their weight-belts and the harnesses that held their tanks, putting on their face masks and adjusting regulator mouthpieces.

Fergus carried a little video rack and he switched on its lamp for a moment; harsh light flooded the chamber, bleaching out all colors. Then he opened the valve all the way and water gushed from the floor vent, filling the chamber in a few moments.

The water of Europa's ocean was at an average temperature of minus ten degrees centigrade. Although its freezing point was reduced because of its heavy concentration of salts, much of the water beneath the icy crust was

half frozen into slush: grease ice and firn ice; brash ice and bergy bits. In places, though, currents driven by plumes from hydrothermal vents at the bottom of the sea, fifty kilometers below the surface, carried relatively warm, mineral-rich water to the bottom of the ice crust. Sometimes, currents driven by especially active vents melted the ice crust, and water and slush spilled across the surface of Europa like lava.

Mines and farms were built over vent plumes. Mines sucked up the mineral-rich water; farms grew gengineered weed in the European equivalent of tropical seawater enriched with fertilizer.

Even so, the water that flooded the chamber was at a freezing two degrees centigrade. As it rose around Indira, an intense ring of cold gripped her body, rising with the water and inducing a terrific headache right between her eyes. It was as if she had gulped down a liter of ice cream. The cold of the water was already sucking heat through her thin gloves. It stung the little bits of exposed skin where the seal of her face mask did not quite meet the seal of her hood; then the skin went numb. She bit down hard on the soft plastic regulator that filled her mouth and concentrated on her breathing until the first agony of immersion passed. The air that hissed through the regulator at each breath was dry and metallic.

Fergus was staring at a little hand-held videoscreen. It switched every two seconds to show different views of black water under ice. His voice said in her earpiece, "Looks clear."

Finn said impatiently, "They said it was clear. They switched on the lights to make sure that it was clear."

"But the thing can travel fast."

Their voices were thin and muffled and flat, sub-vocalizations picked up by throat mikes and processed for clarity.

Indira said, "I hope it does come to us. Then we won't have to go far."

"We'll find it," Finn said, and hit a big red button with his fist.

The chamber rotated with a grinding noise. They spilled out into the black water, dragging their scooters with them.

They were in a wide shaft. The bottom of the shaft loomed above, a massive blister of steel studded with grab rails and red and green lights. Someone moved behind one of the thick bullseye ports. The two men angled away and Indira followed. The white vee of her scooter hummed, its vents pushing out water in muscular streams on either side of her, pulling her toward the open water below.

The two men were heading straight out at a fast clip past the finned radiators that bled waste heat into the ocean. They had not waited for her. It was a challenge, a typical male gesture. Indira paused to gauge the current, chose a long flat curve that would carry her ahead of them, and throttled up her scooter's reaction motor.

She had expected the farm to be big, but it was more than twice the size of her wildest estimate. The maintenance lights were on, and she could see that racks of weed stretched away on all sides of the bottom of the shaft, hundreds upon hundreds of them. Each rack was thirty meters long and five meters wide, bolted to its neighbors in a hexagonal array with orange floatation buoys at each corner; each array was linked at its six points to neighboring arrays and to pylons fixed in the ice roof of the ocean. Weed dangled down from ropes attached to the wire stretchers of the racks, filmy ribbons that in the weak lights glistened violet or purplish red or the reddish brown of dried blood. Mature weeds were a hundred meters long. The whole—weed, racks,

rack arrays—flexed sinuously in the current, like the hide of a gently breathing beast. A haze of molecular sulfur, the waste product of the weeds' carbon fixation, smoked off it.

Unlike the green plants that decorated Phoenix's public and private spaces, weeds did not need light to grow; the lights were for the workers who maintained the rafts and cropped mature blades. Green plants harvested light energy and used it to transfer hydrogen ions and electrons from water to carbon dioxide, forming the simple sugar glucose, with oxygen as a byproduct. But no light penetrated Europa's kilometers-thick ice crust and there was no free oxygen in all its deep ocean: a fish would drown as quickly as a human. Like the indigenous microbes of Europa and chemolithotrophic bacteria of Earth, the weed used reduced inorganic compounds containing nitrogen or sulfur or iron instead of water and light to turn carbon dioxide into sugars.

Most available carbon on Europa was in the form of carbon dioxide dissolved in the ocean beneath its thick icy crust. There had been proposals to crash a carbonaceous chondrite asteroid onto Europa to supply carbon that could be processed by vacuum organisms, but no one had been able to work out how to do this without splitting the crust and resurfacing half the moon. Shortly before the Quiet War, there had been a half-hearted attempt to reach agreement between the five inhabited moons to establish a carbon-mining facility at one of Jupiter's Lagrangian points, but the plan had foundered in acrimonious arguments about sharing the start-up costs of purchasing mining rights to a suitable asteroid and moving it into orbit.

Before the war, Europeans had augmented their expensive greenhouses by drawing up water and using it to grow gengineered yeasts in big tanks, utilizing metabolic pathways copied from the indigenous microbes that grew in the crushing blackness at the bottom of the ocean, around the hydrothermal vents that opened along ridge faults. The European vent microbes had been the only known extant life-forms in the Solar System other than those of Earth. Their genetic code had been based on triplet base sequences strung on a DNA double helix, reinforcing the modified Hoyle-Wickramasinghe panspermia hypothesis that all life in the Solar System, including the long-extinct Martian microflora, had a common ancestor. On Earth, certain bacteria had combined and evolved into multicellular eukaryotes, into plants and fungi and animals. Perhaps this step required an oxygen atmosphere and the more efficient energy-generating metabolic pathways it could support; in Europa's anaerobic ocean, nothing had evolved beyond the level of colonial microbes, which had formed crusts and sheets, lacework baskets and vases, and vast beds of long filaments, around the hot, black, mineral-rich water that issued from the vents. Life had not spread from these refugia; the rest of the ocean had been a sterile desert.

Tailored biowarfare viruses released in the Quiet War had destroyed the industrial yeasts and the native microflora. Afterward, a Pacific Community cartel had introduced licensed strains of chemolithotrophic weed. Even with the premium license tax, the weeds were a cheaper source of fixed carbon than algal ponds or hydroponic greenhouses. Those supplied luxury food items; the weed provided the base input of fixed carbon to Europa's expanding population, just as vacuum organisms growing on the methane and carbon monoxide ices and tars of carbonaceous chondrites supplied fixed carbon to the new Kuiper Belt settlements.

In the midst of the monastery's huge weed farm, Indira overtook Finn and

Fergus and turned her scooter to face them as they vectored toward her. Her arms ached slightly and she worked one and then the other. Her headache had crept downward, a mantle of numbing cold that penetrated the dry suit and its three underlayers—a fleece liner, a quilted undersuit with a little skull cap, the liner from her vacuum suit. Her fingertips were numb inside the thin gloves; the little bits of exposed skin between hood and face mask were slivers of stinging pain. This would not go away. This would get worse. Yet she felt a thrill of elation vibrating in her core. She was here. She was doing her job. The close possibility of death made her more alive than at any other time. It was not something she could talk about, even with Carr. Only other hunters could understand it.

Above was a rippling ceiling of hexagonal arrays of racks, with blades of weed trailing down like hair; below, fifty kilometers of black water. No sign of any movement down there on her sonar. The chemical sniffer that sampled water every few seconds showed no trace of metabolites specific to biowar macroforms. Her regulator valve rattled; dry air hissed. She checked the elapsed time on her mask's head-up display—she had six hours of air in the two tanks she carried on her back, another hour in the emergency bottle clipped to the scooter.

"I think she's made a point," Fergus's thin, processed voice said in her earpiece, as the two monks swung in beside her.

Boys' games.

She said, "I want to look at the damage this monster did."

Finn: "That's where we're going."

Fergus: "It's at the southern edge of the farm."

Finn: "You follow us. Enough hot-dogging."

Yes, boys' games.

She let the men lead.

They traveled a long way through the cold and the dark. Two kilometers, three. An endless skimming fall below waving ranks of weed. It occurred to Indira that she had seen no one working the farm's racks. Surely there should be at least a hundred people out here, harvesting mature plants and stringing new ropes thick with sporelings. When she asked, Fergus said, "That's because of the monster. Which is why *we're* out here."

"You must have a lot of pressure chambers to handle the traffic."

"We manage."

Was that Finn or Fergus? Now she began to wonder how the monastery managed such a huge farm. Where were the facilities for servicing the huge numbers of divers that must be needed? Rothar had shown her the refectory filled with monks as a demonstration of his power—but there had been no more than a hundred men. Did all of them work the farm?

The creepy feeling, which she had shed as soon as she had powered out into the cold dark water of the ocean, began to return.

At last, an hour after they had set out, they finally reached the damaged section. It was near the edge of the farm. It was extensive; at least a hectare. Lights were blown or dimmed to a greenish glow. Whole sections of racks had been twisted free of the supporting pylons, and dangled disjointedly. Other sections were completely missing; presumably they had fallen away to crushing darkness at the bottom of the deep ocean.

Weed grew over broken racks and twisted wire stringers, made complex knotted barricades that waved to and fro in a strong southerly current. Indira had to keep blipping her scooter's throttle to stay in place. There were

patches in the weed that looked as if they had been harvested very recently. It had been done by someone who knew not to cut at the gnarly node where the weed gripped the rope, knew to leave a length of blade to allow swift regeneration. The cuts were fresh, no more than two or three days old. Had the monks tried to salvage their crop after the monster had wrecked this section? If so, then why hadn't they salvaged all of it?

She said at last, "I've only seen pictures of what a dragon can do, but the damage to the racks is consistent."

"I told you," Finn said. "I told you that I caught one."

Indira ignored this. She repeated what she had told them when they had first met. "This is a snoop dive. We'll look around and then we'll go back and make plans. It should take no more than another hour."

"She feels the cold," Finn said.

"I feel the cold," Fergus said, and switched on his lights and took shots of Indira against the wreckage, moving around her with dainty frog-kicks. "Just for the record," he said, when she protested that they were wasting time.

"We do waste time," Finn said. "We go to its lair. Time to finish this. One way or the other."

"Not here," Fergus said. The thin synthesized voice somehow conveyed alarm.

"I know not here. Come."

And then the big man was powering off into the dark beyond the wrecked edge of the farm. Indira followed hard on his heels, riding the smooth water in his scooter's wake to conserve her own scooter's power. She did not believe the story about a lair, but she knew that she would have to look. And then she could begin to make her own plans. She would kill the monster today or tomorrow, and then she could go home.

Another long fall through black cold water. Once, she looked over her shoulder to check that Fergus was following, and saw that already the lights of the farm had dwindled far behind: a linear constellation of little sparks set in the vast cold night of the ocean. They were skimming along just beneath the icy roof. It was not flat, but undulated in long smooth swales, eroded by the relatively warm upwelling current. It glistened blue and green in the wide beam of the lamp of Indira's scooter. Fringes of ferny platelet ice hung down everywhere, delicate growths that softened the swelling contours of the ice.

Now the roof angled down—a smooth intrusion in the undulating ice, an upside-down hill. Indira followed Finn down the long slope. Her depth gauge pinged at every twenty-meter contour. She had nanoformed scavengers in her blood that prevented both nitrogen narcosis caused by high pressure and bubble formation caused by too-swift ascents, but the scavengers only worked within certain limits.

They went down almost two hundred meters; then the slope steepened into a vertical wall, and they dragged below its inverted crest. Beyond was a chaos of slab ice where part of the crust had broken away and reformed. Habitat-sized chunks of ice stuck out at all angles, transparent blue ice shot through with white stress marks, like a jumble of giant, rough-cut gems. Finn slowed and Indira slowed too. They drifted beneath the jagged chaos and came to a stop near a black rift that led back into the ice—a long gently curving slot like a grinning mouth.

"This is where they went."

Indira did not know if Finn or Fergus had spoken—the distortion of their

treated subvocalizations and a sudden surge of adrenaline in her blood obliterated the subtle distinction.

"We will get them back."

Was that the same voice? Fergus had drifted a little way beneath Finn, who was shining a strong lamp into the rift. Fluted ice reflected its red light in a thousand splinters.

"We finish the matter now."

That was definitely Finn.

Indira's chemical sniffer was flashing urgently. She called up the display. Strong metabolic traces, but no positive identification. Were there several types of macroform here? She started the sniffer's analytical program and said, "There's something in there. In a few minutes I'll know what it is."

She turned up all her lights and cautiously edged into the mouth of the rift. A faint but steady current issued from it. The sniffer's HPLC kicked in and started to flash spiky lines as it separated the unknown metabolites. She called up the chemical signature of a dragon as an overlay. And there it was, buried amongst traces of other complex chemicals which the sniffer was unable to match against its library.

"Got you," she said, and something flew past her, a quick flash leaving a wake of bubbles that rose around her like a silvery rope.

Her backbrain recognized what it was and she turned away in reflex before she realized that someone—Finn or Fergus—had fired some kind of self-propelled explosive charge into the rift.

Then it exploded.

The pressure wave clamped around Indira, lifted her, shoved her against the roof of the rift, took her again and dragged her down amongst the glistening smooth hummocks of its floor. Big chunks of ice fell with her, through a haze of chips and fragments that washed to and fro in the cross-hatched froth of aftershock currents.

Someone was shouting, a thin voice like tearing metal. "Not this way! Not yet!"

Somehow, Indira had kept hold of her scooter. She killed her lights and crouched amongst ice rubble. Strong, freezing cold currents washed back and forth over her. There were lights hung beyond the slot of the rift's mouth, two clusters of lights, shining their high beams here and there. She realized that she had been set up. They would kill her here and blame the monster. Because of what she had seen, even if she did not understand what she had seen. Because she was a woman who had dared to trespass on men's territory.

And then something big shot past her. Someone screamed and one of the clusters of lights went out.

It was the dragon.

It doubled back, quick as thought. Indira tried to untangle her spear gun. She had an impression of something black and sleek, with two big fins or flippers that curled around a man-sized bundle.

Then it was past, swimming strongly into the depths of the rift. Gone.

It had taken Finn. Fergus's small figure hung some distance from the entrance. "Keep away," he said, as she angled toward him. "Keep away. I'm armed."

She kept going. A spear shot wide, disappearing into the black water to her right. She gunned her scooter and slammed into Fergus before he could recock his gun, spun him around, uncoupled the air hose from his face mask.

His masked face was obscured by a sudden flood of silvery bubbles. He waved his arms in blind panic. She counted to ten and stuck the hose in his hand.

"All right," he said, when he had it back in place. "All right."

"You wanted me dead."

"Rothar said it was necessary. He said you would be bait for the monster."

"You were going to video it. You thought I would be almost certainly killed by the dragon. After all, I'm only a woman. And if I *had* killed it, you would have killed me, and made up a story."

Fergus didn't deny it. He said, "Finn wouldn't wait."

"He was a coward. Well, he's dead now. That's what dragons do."

"It has our workers," Fergus said, pointing toward the rift. It was just visible as a shadow crescent cut into the ice blocks of the tumbled roof, at the edge of the overlapping circles of their lights.

Indira said, "If it took them in there, then they're as dead as Finn."

How many had the dragon killed? There were about a hundred monks now, but many more than that would have been needed to maintain the farm. . . . Indira was very cold, and found it hard to follow any thought to its conclusion. Every few seconds, a tremor passed over her entire skin. That sleek black shape. Bigger and faster than anything she had ever seen before. . . .

Fergus made a choking, squealing noise. It was laughter, translated by his throat mike. "Oh no," he said. "At least, they were alive a couple of days ago. They came out to feed. The dragon was with them. They ripped up the perimeter of the farm and disappeared before we could get at them. *You*, you're one of the dead, though. Rothar has seen to it."

Then he kicked out with surprising strength and broke free. She let him go. If Rothar was determined to kill her, one little monk wouldn't be much of a bargaining chip.

Fergus was a solitary star dwindling through the ocean's black volume toward the distant constellation of the farm. His voice came faintly to her.

He said, "Finn really did kill one. It was small, but he killed it."

And then: "Don't try to follow me. You don't have enough air. . . ."

Indira had almost used up one of her two air-tanks. Apprehensive alarm suddenly fluttered in her chest. She switched to the second. Gas hissed through the regulator but there was no oxygen, and suddenly she couldn't get her breath. Nitrogen. The fuckers had somehow filled her second tank with nitrogen! She switched back as red and black began to blot out her vision. She had about half an hour's worth of air left, and the trip back would take at least an hour and a half. She had insisted on filling her air-tanks herself, but Finn or Fergus must have done some kind of switch, changing the compressor's inlet from the standard nitrox mix to pure nitrogen. She checked the emergency bottle in her scooter, but she already knew. It had been filled with nitrogen, too.

She did not have enough air to get back, but there was one place within reach where she could get air. The two men had not planned on the monster killing one of them. Finn's scooter with its emergency bottle was gone, still falling toward the true surface of Europa, a fifty-kilometer fall that might take three days. But perhaps his main tanks were still intact.

She had no other choice. And there was the mystery of the workers. Still alive, Fergus had said. Something had harvested patches of weed. Something was producing the chemical traces that overlay the dragon's metabolic signature.

She realized then what the workers must be. What the laboratory had been used for.

She turned and powered back into the rift.

Finn's explosive charge had brought down a big ice fall, but the dragon had punched a hole in the middle of it. Indira shot straight through the ragged gap. She didn't have time to waste.

The passage went a long way, rising in a gentle left-handed curve. It was as smooth as a gullet. The gleaming ice walls confused Indira's sonar, and she switched it off. The sniffer told her all she needed to know: increasing concentrations of the complex mixture of metabolic exudations, including the dragon's fingerprint of methylmalonic acid semialdehyde, α -ketoisovaleric acid, and a triple peak of phosphatidic acids.

When the passage suddenly opened out on all sides, Indira slewed to a stop and fired off a fan of flares. They ignited as they floated away, a string of harsh white stars that starkly illuminated the lower half of a vast chamber. Indira's heart was beating quickly and lightly, driven by anticipation and dread. If this was *not* the monster's lair, then she was fucked. She didn't have enough air to get back out into open water.

The flares floated higher. The chamber was easily twice the size of the Buddhist Temple in Phoenix. Chambers like this were common in the lower part of Europa's icy crust, opened by stress flow and carved wider by intrusive currents until they grew too big, even in Europa's low gravity, and collapsed. It was floored with chunks of ice that had fallen from the ceiling high above and fans of ice rubble slumped from the fluted walls. The chunks had been worn as smooth as pebbles by currents of relatively warm water.

Movement at the edge of the shifting shadows cast by the string of floating flares sharpened the quick beat of her heart. Belatedly, she remembered to switch on her sonar. A cluster of small signals, things the size of a human child. Had the monster reproduced, then? Yes, but not more than once. That was why it had killed Finn. As for these . . .

She guessed what they must be a moment before she worked out that the regular signal beyond the cluster of child-sized creatures was that of a set of racks bolted to the ceiling of the chamber. Of course. They had started their own weed farm; the currents that flowed through the chamber were as rich in sulfides and ammonium as those in the open water.

Then a big signal was suddenly coming straight at her, angling down like a guided missile, brushing through the picket line of flares and sending them spinning. She barely had time to get out her spear gun and aim it. There was a very fine tremor in her arms, but now that it was happening she was quite calm.

The thing came on and she did not fire. It was so very fast! She did not fire, and at the last moment revved the scooter and shot under the monster as it swept over her.

She rolled in its wake and brought up her spear gun again as she came around. The dragon had already turned. It hung there in the glare of her lights and the drifting stars of the flares.

She had seen pictures and brief video sequences of dragons, but she had never seen one in real life. No one had seen one in real life for more than ten years. Until now, she had not realized how beautiful they were.

The dragon's body was streamlined and compact, a long wedge of muscle twice her length, gloved in a flexible carapace of long black bony scales. Its fused rear flippers fanned out horizontally like a whale's fluke, far wider

than the span of her arms. Its pectoral fins were stretched out like bat's wings. Three of the long fingers grew through the thick membrane they supported; they were tipped with long, sharp, black claws. Its mouth was wide and had a shark's humorless grin, with several rows of backward-tilted rip-saw teeth. Not for feeding—it had no digestive system, fueling itself by pumping sulfide-rich water through internal lamellae dense with symbiotic carbon-fixing symbiotic bacteria—but for attack. It was gaping wide now. Its forehead was humped and swollen, with a band of warty protrusions, electrical sensory organs on which it relied more than sight, although it kept one rolling blue eye on Indira. That eye was unnervingly human; she had the uncanny impression that someone was buried inside the monster's carapace, peering out at her.

No, not at her, she realized. At the spear gun and the spear racked ready for firing, at the spear's explosive hypodermic tip, its charge of tailored neurotoxin. Even if it discharged into the water, the neurotoxin would be enough to paralyze the dragon, perhaps for long enough to kill it. If it could not pump sulfide-rich water over its symbionts, it could not generate energy, and after all this activity, it must have depleted the stored energy in its battery muscles. It would quickly die.

Indira raised the spear gun and watched the dragon shift with precise flicks of its wing-like pectoral fins, keeping its rolling blue eye on the tip of the cocked spear. For the first time in her life, she saw her quarry not as a monster, but as another thinking creature.

Carefully, slowly, she inverted in the water and laid the spear gun amongst water-smoothed ice rubble on the floor. Came back right-side-up.

The dragon hung there, watching her. Smaller shapes gathered high above and behind it, shadows moving to and fro against the guttering light of the flares, which had floated up amongst the hanging blocks of the ceiling. She could hear a faint chirruping of cross-talk.

Still moving with dream-like slowness, she took the emergency bottle from her scooter and vented it. The dragon sculled backward from the column of bubbles. Oxygen was poisonous to its symbiotic bacteria. But this was only nitrogen, and the dragon eased back to its original position.

Still moving slowly, Indira took off her harness. She was careful not to tangle the hose that led from the one functional air-tank to the regulator in her face mask. She vented nitrogen from the second tank. This time the dragon did not shy back.

It knew.

The regulator valve rattled more deeply each time she drew a breath. The air-tank was almost exhausted. She hung there in front of the monster, staring at its blue eye, small under the ridge of its swollen bony forehead. It must know that she was not like its enemies. Her dry suit was white and her stab jacket was yellow: compared to the monks' utilitarian black, she was a tropical bloom. And all biowar macroforms had a good sense of taste. It must be able to tell that she was releasing a different set of chemical signals into the cold water, that she was not a man.

The regulator rattled, and suddenly she could not breathe. It rattled again and her rib cage fully inflated, but she could not draw any air. She tried not to panic. She knew that she could hold her breath for more than three minutes. She tapped the regulator, tapped the air-tank.

The monster watched, immobile, unfathomable.

Indira stripped off her face mask, spat out her regulator and clamped her lips against the pressure of the freezing water. She wanted so much to breathe.

A rapid fire of clicks and chirps.

The cold salty water stung her eyes when she opened them. Something shot down, swooped between her and the dragon, dropped something, and shot away.

Finn's harness and his air-tanks.

Indira dove for it. The mouth-piece of the regulator was half-bitten through, and the air-tank it drew on was empty. She prayed that Finn had not switched over to his second tank before the dragon had killed him, jammed the regulator in her mouth, tasting Finn's blood and sputum, twisted the valve to the second tank, and drew a deep shuddering breath.

A bullet of freezing cold sulfurous water hit the back of her throat. She choked on it, bubbles leaking from her mouth, and then realized that she was breathing again.

More clicks tapped through the water. Small figures swooped down out of the darkness beyond and above the dragon. They hung in the black water on either side of its smooth bulk, gazing down as she hooked the hose of Finn's airtank to her face mask and turned it on full to purge the mask of water as she fastened it over her face. They were half her size—Alice's size. Thick smooth coats of lustrous grey fur, sad brown human eyes, long vibrissae on either side of snouts swollen to the size of melons—they must rely on echo location as much as sight. They had the long, half-fused rear flippers of seals, but short, stout human arms where their pectoral flippers should be. Their hands were long-fingered, spread wide to show the webs between.

The farm workers. The creatures Rothar had engineered and used as slaves to increase the wealth of the monastery. The creatures that the dragon had freed.

They clicked to each other using the flat, grinding teeth in their narrow jaws. They did not have the symbionts that fed the biowar macroforms. They needed to eat weed. They had to stay near the farm. But the dragon had shown them how they could live free. They could steal racks of weed and use them to start their own farm.

The dragon moved forward. The long terminal finger of one of its pectoral fins scratched something on a table of ice. And then it flicked its body like a whip and shot away into the darkness. The workers trailed after it, kicking strongly through the water. One hovered for a moment, watching Indira, and then a sharp chorus of clicks sounded and it turned and followed its companions.

Indira was alone. Cold and dark pressed all around the little bubble of light cast by her scooter's lamp. She finned over to the flat table of ice, traced the crude but legible letters the monster had gouged with its clawed finger.

No more war.

Indira got back to the lock with less than an hour of air left. They had to let her in. She showed Finn's explosive charges to the cameras and mimed slapping them against the hatch to make it clear that she would blow her way in if she had to.

Rothar came to her as soon as she had cycled through. A burly monk stood just behind him. Indira was cold and exhausted, and her dry suit stank of hydrogen sulfide, but she straightened her back and looked right at Rothar. She did not bother to look at the bodyguard.

She said, "Finn is dead."

"I know."

"The dragon killed him. Your workers were with it. They gave me Finn's airtank. That's how I survived your attempt to kill me."

She glared at Rothar defiantly. He was looking at a point somewhere behind her left shoulder. The dark blotches on his white face were vivid in the red light of the chamber. Only a slight tremor in his jaw betrayed the effort with which he was suppressing his emotions.

Indira said in an angry rush, "You tried to steal my neurotoxins, but when you failed, you knew you would have to let me go after the dragon. And you wanted me out of the way after I saw the laboratory, but you couldn't just get rid of me—too many people knew I was here. So you sent me out without enough air. The plan was that either the dragon would kill me and Finn would take my spear gun and kill the dragon, or I would kill the dragon and run out of air, and Finn would mutilate my body to make it look like I'd been fatally wounded by the dragon."

Rothar told his bodyguard to stand outside the door, and said mildly, "If you had given us the neurotoxins or let us take them, none of this would have happened."

"You had to kill me after I found the laboratory."

"Not at all. We tried to open your luggage pod as soon as you went outside to use your phone. But it was too well-defended and I had to implement a second plan. The only way to get your neurotoxins was to take them from you in the ocean, and the only way to take them from you was to kill you. I let you find the laboratory so that my community would condone your death because you had discovered our secrets."

Indira was too tired to feel either hatred or fear. She said, "You were certain the dragon would kill me. You expected it. After all, I'm only a woman. Fergus was supposed to video my death. And if I did kill the dragon, then I couldn't be allowed to live because it would make a mockery of your creed. Either way, I had to die."

Rothar did not deny it.

"Instead, the dragon took Finn because he had killed one of its scions. I don't know what happened to his body."

"We will hold a service in memory of his soul."

"Your workers have escaped you. They will start their own farm."

Rothar said, "They will have to come back. They need certain vitamins and amino acids that the weed cannot provide. They know this."

Perhaps they had eaten Finn's body. Or perhaps they had taken it with them. It would take a long time to even begin to decay in the cold anaerobic ocean. She said, "I don't think they'll be back."

"Then I will raise some more."

"And meanwhile, your farm will fail. And perhaps your new workers will escape too. How intelligent did you make them?"

Rothar smiled. "Intelligent enough." He paused. He said, "Not as intelligent as the dragons."

She understood. She said, "You were a gengineer, on Earth."

Rothar looked at her for a moment, looked away. He said, "I was part of a team, Ms. Dzurisin. Unfortunately, I was not working on the dragons, or I would not have needed your neurotoxin."

"But you used that knowledge to gengineer your workers when you came here. Those blotches on your face—they're from some kind of accident, aren't they? You couldn't get it treated, because then people would know that you had been working illegally. Finn killed a dragon, a juvenile. At first, I thought you caught it because you wanted to learn the secret of how the macroforms can live off the ocean, but now I think he killed it because he could."

"Finn was a useful man, but his propensity for violence could not always be contained. I did not need to learn any secret, Ms. Dzurisin. I already know how the dragons and the other biowar macroforms live. My workers are a type of macroform that was not used in the Quiet War. I altered their genotype to make them dependent on the weed they grow, but otherwise they are just as they were designed."

"The dragon that sired the one Finn killed came here looking for its scion. And found the workers." Indira stared right at Rothar. She said, "I didn't kill it. But you'll want to pay me anyway."

Rothar said, with a note of amusement, "I don't think so."

"I think so. I found the dragon but I didn't kill it, and that's why you'll need me to negotiate with it."

Rothar folded his arms. He said, "We will talk, in my study. Get changed, Ms. Dzurisin. Get warm. Think about what story you will tell your colleagues once you leave here."

She knew then that she had won.

The bus pulled away from the monastery and began to descend the road that switchbacked down toward the plain. By human clocks, it was the middle of the night; on the surface of Europa, at 2°S 84°W, it was just after dawn. The small, shrunken Sun stood just above the flat eastern horizon. Above it, Jupiter showed a wide, narrow crescent, a bow of yellow light bent toward Europa. Out there, on the plain of ice plates cross-hatched by triple-banded ridges, everything had two shadows.

The bus said, "Did you find the monster? Did you kill it?"

"I found something else," Indira said.

She thought of her daughter and her dreams of sea gardens full of benign animals. She thought of all the children of Phoenix, staring with avid fascination into the darkness of the ocean. She thought of the workers, and the monster that had adopted them. It was smarter than its makers knew. Perhaps it had learned wisdom in the black depths of the sea. Who knew what thoughts, what philosophies, the dragons spun as they hung in the cold and the dark and pumped life-giving water through symbiont-rich lamellae? Perhaps one day, Alice and her generation would find out.

Indira would have to talk with the other hunters. There must be no more hunting for dragons. *No more war*. Perhaps they could help the workers, set up feeding stations where the creatures could get their dietary supplements of vitamins and essential amino acids. Perhaps they could learn the workers' chattering *patois*. Make contact. Cooperate. And begin to make the ocean a place in which to live.

Indira said, "I think I might have found something that Earth can't do."

The bus didn't understand. Indira wasn't sure that she did, either, but it didn't matter. Alice and all the other children would. ○

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TWELFTH ANNUAL READERS' AWARD RESULTS

(continued from page 9)

BEST COVER ARTIST

1. CHRIS MOORE

2. Bob Eggleton
3. Don Dixon
4. Mike Carroll
5. Gary L. Freeman
6. Kim Poor
7. Kinuko Y. Craft
8. Jael

BEST INTERIOR ARTIST

1. DARRYL ELLIOT

2. Steve Cavallo
3. Laurie Harden
4. John Stevens
5. Dwayne V. Wright
6. Janet Aulisio
7. Anthony Bari
8. Mike Aspengren
9. Nicholas Jainschigg
10. Bob Eggleton

Both our Readers' Awards and *Analog's* Analytical Laboratory Awards were presented on May 2, 1998, during a breakfast at the Hotel Santa Fe in beautiful Santa Fe, New Mexico, where we had gathered to attend SFWA's Nebula Banquet weekend. Each winner received a cash award and a certificate. Of the Asimov's winners, Allen Steele, Bill Johnson, and Laurel Winter were on hand to accept their Readers Awards in person. Other notables present at breakfast included Joe and Gay Haldeman, Sheila Williams, Charles N. Brown, editor of *Locus*, Beth Gwinn, *Locus* photographer, Linda Steele, and the entire Johnson family. Later that evening, at the Banquet, Nancy Kress was judged the winner of the Novelette Nebula Award for her Asimov's story, "The Flowers of Aulit Prison." Later, many SFWA Members had their tongues dyed red-and-black at the Strange Candy Party, but that, as they say, is Another Story. Suffice it to say that in spite of the high altitude, which makes it difficult to breathe (Santa Fe is 7,000 feet above sea level), everyone somehow managed to party on long into the night.

THE FUTURE OF THE FUTURE

CIPHERS

Paul Di Filippo
Cambrian Publications/Permeable
Press, \$18.95
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Order from Cambrian Publications
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Campbell, CA 95011

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Orbit 5.99 pounds, St. Martin's Press,
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SECOND COMING ATTRACTIONS

David Prill
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LES RACINES DU MAL

Maurice G. Dantec
Gallimard, no fixed price

So we were sitting around jackpotting over tea at the mosque, and an acquaintance says: "Is anyone writing science fiction anymore?" "Huh?"

"I used to read it all the time, but I stopped about ten years ago."

I groaned. This is something you hear all the time, in France, in Britain, in the United States. There are a lot of people who read science fiction avidly in the 1960s, 1970s, and through the heyday of cyberpunk in the 1980s, who gave up on it in the 1990s.

I explained to him, as I normally do under such circumstances, that, yes, people still write science fiction, yes, there are good new writers entering the field, why I've even been known to still write the stuff myself from time to time.

And then he said something that I had never heard before, never thought before, which has haunted me ever since. "Science fiction," he said, "is a finished story."

"Say what?"

To paraphrase and condense a complex conversation, which was conducted in French anyway:

Science fiction, according to my acquaintance—the popular literature, the subculture around it, the publishing apparatus—is, or rather was, an historical phenomenon. From a future historical perspective, it will be seen to have had a beginning sometime after the turn of the twentieth century, a literary evolution that peaked between the 1960s and 1980s, and to have died out about the turn of the twenty-first century. An artistic-cum-social movement, like Impressionism, Dada, Futurism, with a beginning, a middle, and an end.

"Someone should write a novel about it," he said.

A chill went through me.

"I have," I told him. "It's called *He Walked Among Us*."

Well, partly.

The McGuffin of *He Walked Among Us* is a comedian sent back to the present from a future in which the biosphere has been assassinated to goose the timestream into a more favorable trajectory by getting on television and pretending to be what he actually is. The comedian is discovered by a sleazy talent agent who hires a kind of New Age guru-cum-actress-cum-acting coach to develop his act, and . . .

And a science fiction writer to write jokes and format.

Which is what is relevant to that discussion in the Paris mosque and its extension herein.

For, via this aspect of the story, *He Walked Among Us* explores the cultural matrix of science fiction and the relationship of the literature thereto—the conventions, the publishing, the fans, the scientists at the fringes, the idealistic *raison d'être*, the schlock—from the point of view of an insider, but also from the points of view of a New Age mystic intellectual and a Hollywood wise-guy.

So as to explicate this reality to readers totally unfamiliar with the "story" of "science fiction." Maybe not presented as a story with a beginning, a middle, and an end, but yes, seen in a certain sense as an esthetic and cultural movement like Dada or Futurism or Impressionism, and therefore, I suppose in retrospect, implying a closure.

Not that I exactly realized this while I was writing it.

I have never had as much trouble trying to get a novel published in my three decades plus as a published novelist. Not even the notorious *Bug Jack Barron*, denounced on the floor of the British Parliament. Not even *The Iron Dream*, banned in Germany for eight years. Not even *The Solarians*, about whose literary quality the less said the better.

Okay, that it would be hard to publish such a work as a mainstream novel in the contemporary context is not surprising. But that no science fiction publisher would touch it with a fork made no sense, particularly since one of the publishers who wouldn't subsequently contracted for a new unwritten science fiction novel.

Made no sense, that is, until that conversation in the mosque.

Hence the sudden chill.

I do try my best to keep my own fiction out of these discussions, which at times involves considerable contortions. At times like this I fail,

since I have been writing science fiction for over thirty years, and since it is the opinions of critics other than myself that certain trends would be difficult to explicate without at least reference thereto. But at least I believe I have avoided discussing the quality or lack thereof of my own fiction, which would admittedly be going way over the top.

Fortunately for me as a critic—if not for the writers in question—I have before me two novels, *Ciphers* by Paul Di Filippo and *Les Racines du Mal* by Maurice G. Dantec, neither of which have found a major American publisher, science fiction or otherwise, and about both of which I can forthrightly declare what I could hardly presume to even intimate about one of my own.

Namely, that, conservatively speaking, both *Ciphers* and *Les Racines Du Mal* are literarily superior to 95 percent of what has been published in the main science fiction lines over the past five or so years.

Okay, so the Dantec is written in French and runs over six hundred pages in that language, even though there is a film in the offing—a Hollywood-financed film at that.

But the Di Filippo is not nearly so long, is written in admirably entertaining English, is steeped in American popular culture, and yet has been published as a cooperative effort by two obscure Californian small presses, Cambrian Publications and Permeable Press.

Here we have two major groundbreaking novels, both easily qualifiable as science fiction, both massively superior to most of the last decade's Hugo and Nebula winners, both potentially more influential to the upward evolution of the literature than anything since *Neuromancer*, neither of which has found major publication in the United States.

Yes, that's a large claim for these novels, and I will indeed attempt to

justify it later. But first a short detour to fifteenth century China, by way of explaining why the frisson of dread evoked within me by the notion that science fiction may be a "finished story" went far beyond literary matters or my own difficulties in finding a publisher for a book.

As the medieval period in Europe was in the process of transforming itself into the age of exploration and the Renaissance, China had for several centuries had a technological civilization a century or two in advance of any other in the world. Not just movable type well in advance of Gutenberg, but mass printings of books and journals. Not just gunpowder fireworks, but war rockets with explosive warheads, Gatling guns of sorts, ironclad warships, a kind of tank. Advanced medical practices, complexly geared production machinery, sophisticated metallurgy. Perhaps, according to some accounts, even heavier-than-air human-carrying kites. Under the admiral-emperor Zheng He, a precursor of Prince Henry the Navigator, an age of exploration was underway. Chinese fleets reached India and Africa, some say even the Americas. A dynamically evolving technological civilization about to be born. . . .

And then, at the peak of its momentum—

It stopped.

Dynamic Chinese civilization pulled back, froze, ossified, declined.

What, you may ask, does this have to do with science fiction?

Unfortunately for the Chinese, nothing.

They didn't have a literary form like it.

Western technological civilization, which we may arbitrarily date from the invention of the steam engine, did. All through the nineteenth and twentieth century, reaching its full literary flowering, interestingly

enough, in the 1960s and 1970s, just as men were setting foot on the Moon, just as an age of space exploration seemed to be dawning, just as culture, music, art, human consciousness itself seemed embarked on an evolutionary path upward and onward, inward and outward.

And then, at the peak of its momentum—

Did it stop?

Certainly the age of space exploration stopped, as witness the disjunction between, say, Kubrick's 1960s vision of 2001 and what we will have three years from now, and seeing as how the general 1960s assumption that we would be on Mars in about 1980 proved to be, shall we say, a tad overoptimistic.

But I would contend it goes a lot deeper than that.

Upwardly evolving technological civilization was born exactly once on this planet. The classical Greeks had a curious little gizmo called an aeolipile, which, scaled up and attached to a gear-train, would've been a steam turbine. They never thought of it. The Aztecs invented the wheel and built toys that rolled around like wagons—but never took it any further. The Chinese were on the brink—but never crossed it.

Only in Western Europe and North America along about the turn of the eighteenth century or so was that elusive line crossed with the invention of the steam engine, which led to the steamboat, and the railroad, and production machinery driven by steam-power, and all that followed between then and that famous first footprint on the Moon.

What did "western civilization" have that every previous human civilization lacked?

In a word, the future.

The concept of "the future" with which we are all so familiar.

The central precept of science fiction without which the literature

could not have been born and without which it cannot continue to exist.

Namely that the future will be different from the present, that what the future will be will in large part be determined by what we do in the present, that "the future" is therefore actually a multiplexity of virtual futures, that humanity can remake the world to its own heart's desires or worst nightmares or both; that indeed, for better or for worse, this is quite unavoidable, that "progress" in the sense of material, intellectual, and spiritual upward evolution is, if not inevitable, then certainly possible.

This seems so obvious to us that we don't even think about it. This has been the impulsive force of "western civilization" for at least two centuries. This is what has now made "western civilization" a planetary civilization. This is what put human footprints on the Moon and sleazy Hollywood product on satellite television in the heart of Africa and the depths of the New Guinea jungle.

This concept of the future, however, is by no means an historical universal, in time or in space. It arose in the west around the dawning of the nineteenth century, along with the beginnings of the literature that expressed and to some extent created it and that would become "science fiction" in the twentieth century.

This, I submit, was no coincidence. For without such a concept of the future, a visionary literature like "science fiction" cannot exist. And vice versa. For without a means of visionary speculation such as "science fiction," such a concept of the future cannot arise or persist.

The fourteenth and fifteenth century Chinese, materially speaking, were on the brink of creating an evolving technological civilization that would've led to manned flight by the sixteenth century, space travel by the eighteenth, what we can scarcely imagine by now. But they

never crossed that brink. They stopped. They fell back.

They lacked only one thing—that visionary concept of "the future," that speculative imagination that is the essence of "science fiction."

Hence the full depths of that frisson of dread at the concept that "science fiction" could be a "finished story." We do indeed know where and when that story began. We have lived through the long flowering of its middle. Does that story have an end?

And if it does, what ends with it?

Has it happened already?

When it comes to the commercial, cultural, and editorial machinery of "science fiction," the life-signs are hard to find in an era when its publishing apparatus and apparatchniks are malfunctioning to the point where a major novel like *Ciphers* is published by a "small press."

Ciphers is a difficult novel to describe, the central McGuffin being the easiest of it. Cyril Prothero's girlfriend Ruby and his best friend Augie are abducted for unknown nefarious purposes by agents of Wu Labs, a tentacular conspiracy led in apparent absentia by the eternal and eternally elusive Dr. Wu, who may be a kind of avatar of a kind of godhead. Cyril and Augie's girlfriend Polly set out to rescue them.

There are several other viewpoint characters, most of whom are connected to Dr. Wu by one elusive ectoplasmic thread or another, all of whom metamorphose, interrelate in unexpected time-warped manners, as *Ciphers* moves around in space and time non-linearly and seamlessly from Boston to Cambodia to Dahomey to the Haight-Ashbury to quantum-level virtual reality to various mystical realms, from the Summer of Love to contemporary Boston to ancient China to early post-colonial Africa to the inside of Schrödinger's cat box.

Ciphers is at once comically outra-

geous and in metaphysical earnest, politically outraged and light-hearted, science fiction and fantasy. It deals with biochemistry, molecular biology, quantum physics, and chaos theory, on a level of scientific rigor rescued from didacticism only by the madcap humor of the off-the-wall explanations. It treats any number of mystical systems, real and imagined, as existing on the same reality level, arguing thereby that they do. It incorporates a secret history of the War on Drugs, the machinations of the CIA in Indochina and the French in Africa, economic theory, and much, much more.

If this sounds heavy, over-intellectualized, and tendentious, nothing could be further from the truth. *Ciphers* may indeed be seriously intended, but it is a comic novel, and all of the above is enlivened by Di Filippo's Holy Trinity, to wit, and I do mean *wit*, Sex, Drugs, and Rock and Roll.

Politically Incorrect?

Ciphers is full of enthusiastically described explicit sex of virtually every persuasion—heterosexual, homosexual, machismoistic, feminist, cunnilingus, fellatio, buggery, doing it with *snakes*. Di Filippo also displays an unabashed affection for the consciousness-enhancing puissance of various illicit substances, real and imagined, and rips the Drug Enforcement Agency, the War on Drugs, the very metaphysics of the Great God Money itself into well-reasoned giggling shreds.

In your face?

The front cover features a full-color photograph of a well-built nude young lady entwined by a python and the back cover a nude black-and-white photo of the somewhat less shapely author himself.

But *Ciphers* is not an angry novel, it isn't really out to shock anyone *per se*, though no doubt it will; it's almost relentlessly good-humored.

It is also enormously self-indulgent. It raises self-indulgence to a consciously crafted artform. And makes it work.

Paul Di Filippo herein seldom for long lets the reader forget that Paul Di Filippo is narrating this tale. When the author wants to address you directly—within a scene, with a subordinate clause or a parenthesis inside a sentence, with a pages long discursive digression—he just goes ahead and does it, without apology, without hiding it behind some clever technique, without shame.

As if to say, hey, this is a novel, and I *am* writing it, after all, so why play the game that it isn't and I'm not, when it's more fun not to?

Di Filippo also indulges himself and the reader with his love for and encyclopedic knowledge of twenty years of rock and roll, incorporating bits and pieces of lyrics, some obvious, some obscure, not merely in every chapter, but practically in every paragraph of every chapter. To give you an idea, there is a thirty-four-page chapter-by-chapter glossary at the back of the book explicating references, the lion's share of which are rock lyrics.

If this sounds as if you *need* the glossary to read the novel, *au contraire*. Indeed, for me at least, and I expect it will be the same for many readers, the surprise is how many of these song references you know and recognize the moment you read them, as if the whole point of the glossary is to make you recognize how deeply rock and roll has penetrated your consciousness, indeed the extent to which contemporary consciousness has been *formed* by this stuff.

And not for the worse.

Except toward the very end of the novel where the effect thickens a bit too much when it should be thinning, Di Filippo's intimate incorporation of rock lyrics into his own prose line

works either amusingly or invisibly, giving a line an added resonance comic or otherwise when you get it, passing for the author's own prose when you don't.

Except—

Except once in a while, you have to put the book down for a beat when a really outrageously apropos song reference produces a pleasurable reaction somewhere between laughter and the groan elicited by a truly over-the-top pun.

If this sounds as if I haven't enjoyed a science fiction novel this much in years, well, I haven't. *Ciphers* is not only a multileveled intellectual and spiritual magical mystery tour written with elegant exuberance, it's *fun*. Yes indeed, it rocks and it rolls, it shimmies and it shakes, it crawls on its belly like a reptile!

If a novel like *Ciphers* is not at least a finalist for the Hugo and the Nebula, those awards will be reduced to the literary credibility of bowling trophies. Assuming this hasn't happened already.

So how is it possible that *Ciphers* was not published in a major way by a major publisher?

Okay, so Paul Di Filippo is known as a supporter of the small press movement, so for all I know, he chose not to submit the manuscript to the majors for idealistic ideological reasons. But that would still beg the question of . . . why? Why would a writer who had produced a novel of this stature feel he had to go that route?

Surely any editor who could not recognize *Ciphers* as an eminently publishable masterpiece should be certified as brain dead, taken off the life-support machinery, and given a decent burial.

Or not?

I recently had a novel rejected by a French publisher (admittedly later picked up by another one) as "trop hardi." My French being what it is, I

knew that "trop" meant "too much," but I had to look up the translation of "hardi":

Bold, daring, fearless, intrepid, audacious, venturesome, forward, impudent.

How can a novel, let alone a science fiction novel, be rejected for being *too* bold, daring, fearless, intrepid, audacious, venturesome, forward, impudent, you may well ask, as I did, without coming up with any good answers.

Aren't these qualities *virtues*? Aren't they particularly *science fictional* literary virtues?

For sure these are qualities that *Ciphers* has in abundance. Certainly no editor of a science fiction line could be enough of a philistine to stand up in public and contend that they are flaws!

Publishing executives, however, the corporate bean-counters and pencil-pushers, are another matter. Years ago, Ron Busch, president of Pocket Books, in canceling David Hartwell's Timescape line, explained in the pages of the *New York Times* that he was doing it because the books were *too intelligent*. He wanted to start a new line that would publish *stupider* books.

Really. No shit. You could look it up.

"Trop hardi."

Welcome to the Corporate Monkey House.

Yes, it would seem that it is now possible for a science fiction novel to be rendered commercially non-viable in the eyes of the publishing powers that be by an *excess* of literary *virtues*!

What further sign do we need that the "story" of science fiction, its genre publishing apparatus, its subculture of fans, its dedicated idealistic science fiction writers, its passionate editors, has reached an ending, and not a happy one?

Well, only one, much more dire, not merely for science fiction, but, I

would contend, for our planetary civilization itself.

And, alas, we have it.

Science fiction would seem to have lost its visionary *raison d'être*. Our civilization would seem to have lost its positive evolutionary concept of "the future."

Perhaps you've noticed that even the best science fiction of the past few years and more seems to be dystopian to one degree or another, dealing at best with idealistic heroic figures attempting to revive the visionary virtues in a future devolved in one way or another from the present. Even the four novels dealt with in this current essay, all of which I find admirable, cannot summon up a credible vision of a future more attractive, more truly evolved, than our present.

The more "advanced" human cultures we do see seem more advanced only in surface technological terms, not politically, culturally, morally, or spiritually, and characters whose consciousnesses are convincingly portrayed as more highly evolved than our own in such terms are, to say the least, few and far between.

Not so coincidentally, our planetary civilization itself seems to have lost the ability to see the future as much of anything positive beyond the present with more and better products, an ever-increasing planetary GDP, higher profit margins, and a bull market that goes ever on.

Worse than the loss of the Space Age as the new age of exploration, as the dawn of a transplanetary transformational civilization—and that is bad enough—our planetary civilization seems to have reached a corporate consensus model not of a multiplicity of possible virtual futures, but of a single future, an official reality.

Namely the future of "free market" (i.e., corporate capitalist) "democracy" and a "globalized" economy (i.e., a

world in which multinational corporations are more powerful than democratically elected governments) and whose ultimate deity is the wisdom of "market forces," Marxist economic determinism stood on its head to read "from each according to his lack of economic power, to each according to his greed."

Such a future has no place for a space program following a visionary exploratory and evolutionary vector unless it does so at a profit. Such a future cannot conceive of human consciousness evolving beyond its own limited parameters, cannot even perceive those parameters as limited. Such a future has no place for alternate cultural models in which other than economic interests are the spiritual *raison d'être*. Indeed such a future cannot conceive of such a thing as a spiritual *raison d'être* transcending the sacred bottom line.

Such a civilization has no place for a seriously regarded, seriously written, visionary speculative literature that creates a multiplicity of alternative visions of virtual futures, that opens the doors to visionary thought, that owes what commercial success it has to the intellectual and endorphyic charge of the awakening of a sense of wonder, of the ecstatic appreciation of the glories of chaotically transcendent ongoing evolution.

Trop hardi.

Hey, *that* kind of stuff is liable to make avidly consuming couch-potatoes and minimum-wage slaves bold, daring, fearless, intrepid, audacious, venturesome, forward, and, worst of all, impudent. At the expense of productivity and the sacred bottom line.

Such a civilization is perilously close to terminal ossification, stasis, followed by decay. Such a civilization *must* trivialize anything like "science fiction" out of serious and/or widespread cultural and intellectual centrality.

Which, perhaps, is another way of

saying that any civilization that does this to whatever should serve the cultural function of "science fiction" or, worse, never develops anything like it, sooner or later writes the ending of its *own* story thereby.

And to that of "science fiction" as well. We're not dealing with linear causality here. "Science fiction" may be the minor node and "global civilization" the major, but this is a negative devolutionary feedback loop, just as the co-evolution of "science fiction" and "western technological civilization" from the late stages of the Age of Reason to the peak of the late lamented Space Age was a positive one.

Is there then, no hope?

Well, the four books under present consideration certainly demonstrate not only that fine work is still being done within the literary parameters of science fiction, but that at least in one case, a corner of "science fiction" genre publishing has served as a refuge for a strange and somehow charming novel that would seem not to fall within those literary parameters at all but which it would be hard to imagine published elsewhere.

As the small press publication of *Ciphers* would seem to demonstrate, the commercial heart of the SF genre having been hollowed out, the place to look for signs of creative life is around the fringes.

Well, sort of. St. Martin's Press is a major house and like most majors, part of some vaguer and vaster corporate entity, but Gordon Van Gelder's science fiction line there seems to function as a kind of "giant small press."

At a recent SF convention panel that had writers contemplating slitting their wrists as a good representation of SF editors bemoaned the state of the genre to the point where one editor half-seriously threatened to do her own, the general consensus was, if you've got something weird,

don't send it to me, send it to Gordon Van Gelder.

Van Gelder sighed, shrugged, said: "Yeah, send it to me."

And over the last few years, Van Gelder has published a disproportionate amount of the best cutting edge speculative fiction, considering the modest number of titles St. Martin's brings out annually—and, as far as I can remember, *no* cynical schlock. Here we have one of the last SF editors to follow his own taste rather than the bottom line, fortunately a sophisticated and eclectic taste.

Take the two St. Martin's titles currently in question: *Cythera* by Richard Calder and *Second Coming Attractions* by David Prill.

Calder is a British writer of considerable talent who had such trouble getting his work published in the United States that his British agent complained to *me* about it. I read the British edition of his first novel, *Dead Girls*, and was so impressed that I reviewed it in these pages, and so began my policy of being open as a reviewer to works that have not yet found an American publisher. Coincidentally, I believe, Van Gelder picked up the novel for St. Martin's, and has been publishing Calder ever since, *Cythera* being Calder's fourth novel, and perhaps his best yet.

Cythera is not an "easy read." It is not written in transparent prose, its storyline is recursive, its imagery simultaneously refers back to Calder's previous books and to some deep allusive and elusive psychic structure that at least seems to emerge from the author's subconsciousness itself, characters mutate into virtual versions of themselves, certain scenes may be offensive to most and are so intended, and the ultimate natures of the interpenetrating realities remain difficult to fathom to the end.

Cythera is mostly set in, aside from various virtual realities, an

Antarctica of the next century somewhat resembling a post-mining-boom Alaska or Nevada falling apart, and a Bangkok one night in which might indeed make a strong man tremble.

Attempting to summarize the story, a formidable task to begin with, is made more difficult by the fact that that main viewpoint characters—call them one-time shock-porn star Dahlia Chan, her lover-fan with a multitude of names, the Thai thief-cum-hooker Mosquito, the shock-porn film director Flynn who created Dahlia Chan in deeper ways than one—mutate continuously, changing names, personas, reality levels.

In this future, the electronic loas of cyberspace, herein the “fibersphere,” have broken through “The Wound” between fiberspace (a.k.a. Earth 2), created by schlocko shock-porn, among other media things, and our flesh-and-blood reality, Earth 1.

While they can exist in Earth 1, they lack true embodiment. Dahlia, creature of fiberspace, created as a sex-fantasy-image for, yes, children, by Flynn, and her fan-boy lover and champion, an Earth 1 human to begin with, spend the novel on a multi-leveled multi-reality vision-quest-cum-search for Cythera, a.k.a. Earth 3, where the denizens of fiberspace and Earth 1 can unite in a synthesis reality.

Well, that’s a sort of plot summary, but there’s much, much more beneath it, involving childhood sexuality, fetishistic fixations, the desperate attempt to escape the image of evil fatherhood in search of the good, the capture of libido by the media manipulators and its perversion for political and murky psychological ends, the fear of child sexuality and its transformation into the imagery of child-as-demon, etc.

Not an easy read. In parts not a very pleasant read. Definitely not the sort of thing ever to become even

an “SF best-seller.” But elegantly and powerfully written, deep, disturbingly thoughtful, formally innovative, and yes, in the end, formally, thematically, and emotionally well-resolved.

In a review of an earlier Calder, I opined that “if you like William Burroughs, you’ll probably like *Dead Boys*.” That remains true of *Cythera*, but here Calder has progressed. There will be people who cannot get through *Nova Express* or *Naked Lunch* or stuff like *The Ticket that Exploded* who will be able to read *Cythera* with comprehension and enjoyment. It’s a bit as if the mature Burroughs of those novels had revisited the early lucidity of *Junkie* (originally published by the way by Ace!) and found a balance between imagistic power, formal structure, and coherent storytelling.

Trop hardi for mainline genre SF? Better believe it. But Van Gelder managed to publish it in his “SF line” anyway.

He also somehow managed to publish *Second Coming Attractions* by David Prill as “SF,” a novel that would seem to have no connection to the genre or for that matter to anything else I’ve ever read either.

Second Coming Attractions is set entirely within the contemporary (and presumably fictional) world of American inspirational Christian film-making, replete with studios, award ceremonies, stars, business rivalries. The packaging, and indeed the very concept, leads you to expect a piss-take on Hollywood via evangelical Christianity and/or a piss-take on evangelical Christianity via Hollywood.

But that’s not what you get. What you get instead is something strange, gentle, and . . . and, understand I mean this in a positive sense, rather sweet.

The main viewpoint character is Leviticus Speck, second in command

of Good Samaritan Films, founded and still presided over by his father Noah. Secondary viewpoint characters are Rance Jericho, an actor who made a career playing Jesus for Good Samaritan but now grown too long in the tooth for the part, and Leviticus' sister Evie, who falls in love with Ricky Bible, who replaces him in the role.

The nemesis of Good Samaritan is Blood of the Lamb Pictures, an upstart outfit that takes market-share away from Good Samaritan's gentle, positive, inspirational product with a line of films featuring the Fetal Detective, a wise-cracking, hard-boiled fetus in a fedora with a forty-five, who blows away abortionists and their evil minions in the service of the Unborn.

Yes, there is a certain amount of satire here, a gentle send-up of Hollywood via its Christian inspirational cognates, and something more sharp-edged when we get to the Fetal Detective. But not of sincere Christianity.

I do believe that while you don't have to be a sincere Christian to enjoy *Second Coming Attractions* (I did and I certainly am not) any sincere Christian with a reasonably open mind could read this novel with pleasure, rather than ire. Virtually every character in *Second Coming Attractions* is a sincere Christian, and sympathetically portrayed as such. Even their moral dilemmas and conflicts, and they do have them, take place entirely within a consensus and unchallenged Christian context.

One may be led to believe that it will ultimately be revealed that Satan is behind Blood of the Lamb Pictures, but Prill takes no such cheap and obvious shot, though the novel clearly comes down squarely against the anger and methods of the anti-abortion movement, the "Angry Lambs," as Leviticus calls them. There is moral conflict at the core of

the novel, but it is moral conflict between different persuasions of sincere believing Christians.

Why, you may well ask, did Gordon Van Gelder publish a book like *Second Coming Attractions* in an "SF" line? The answer would seem to simply be that he liked it, and he could, and where else was something like this going to be published?

Which perhaps begs the question of why Van Gelder can publish an SF line consisting entirely of books like *Cythera* and *Second Coming Attractions* without any concession to cynical schlock or, seemingly, the commercial bottom line, when virtually no other major publisher seems to be doing it?

Well, I said earlier that the St. Martin's line seems to function as a "giant small press"—large print runs by small press standards maybe, but not by the standards of a major publisher. Modest commercial expectations. Modest advances. Modest distribution. Modest returns. Modest but acceptable profits at the end of the fiscal year.

Which seems to be what SF genre publishing has come to. The works that should be literarily central must be published along the commercial fringes. Nothing is trop hardi if no significant money is riding on it.

Is this then, the terminal future of science fiction—schlock at the commercial center, the heartfelt, seriously intended fiction surviving precariously at the margins? Is such cultural marginalization—cynical commercial product on a mass market level and museum-piece preservation of its creative core for a small and dwindling specialty readership—the end of "science fiction's story"?

The signs are not good, especially when you consider that that is *precisely* what has happened to so-called "mainstream literature."

On the other hand, while the future may look grim for the collectivi-

ty of the so-called "SF community," certain individual writers, being visionaries with publishing street smarts, are beginning to fashion their own escape acts, as witness what Maurice G. Dantec has managed with *Les Racines du Mal*, at least in France.

Published properly in English, this would be a landmark novel, but that might be a tall order, and not just because it is 636 pages long and written in French. Indeed, had it been published in an SF line in France, it might not have achieved the critical and commercial success it enjoyed there either.

Les Racines du Mal transcends genre not because it works the interface between the science fiction and "roman noir" genres but because it quite thoroughly incorporates both of them.

The first hundred plus pages are a breathtaking tour de force, describing the serial-killing rampage of Andreas Schaltzmann, from both inside the killer's consciousness and from a cold clinical exterior viewpoint, both in third person. A kind of French version of Brett Easton Ellis's *American Psycho*, made much more interesting by the alternation of Schaltzmann's paranoid schizophrenic science fictional viewpoint with Dantec's cool objective external narration.

When Schaltzmann is finally apprehended, the usual closure to this sort of thing, there are still more than five hundred pages of novel left, and Dantec switches over to the first person viewpoint of Arthur Darquandier, a kind of quantum neuroscientist-cum-psychologist, who along with Drs. Stefan Gombrowitz and Svetlana Terekhovna form a team examining the psyche of Schaltzmann for the defense.

In the course of their investigations, they discover that Schaltzmann could not have committed sev-

eral of the killings, but this seems to go nowhere as Schaltzmann is put away; the case closed, and Darquandier leaves France, the present, and the roman noir genre for Canada and then Australia, the near future, and science fiction, as he spends years working on the successful development of neural networks for the NASA space program. This eventuates in one he can load in his laptop, that is partially modeled on his own consciousness, and that is indeed an authentic being, in a manner we will get to shortly.

Darquandier eventually returns to France with his software alter-ego, a.k.a. Dr. Schizzo, and incorporates Schaltzmann's consciousness model into the software. When Schaltzmann kills himself and more murders fitting the old pattern are committed, Darquandier, Dr. Schizzo, and Svetlana return to a chase and detection story line, which takes them through the Alps, through various sinister role-playing virtual realities, in search of the killer cult behind it all.

So much for the plot, which skillfully combines science fiction and the so-called "roman noir," also called the "polar," literally meaning "black novel," a French genre generally translated as "mystery" or "detective novel" but as seen from the above encompassing somewhat more than that implies in English.

On the basis of this skillful melding of genres into a whole greater than the sum of its parts, *Les Racines du Mal* would be noteworthy but, there's much more to the novel than that.

Dantec is both streetwise and erudite. On a science fictional level, he imbues "Dr. Schizzo" with genuine consciousness not merely by modeling the A.I. on Darquandier's and later Schaltzmann's consciousness but by incorporating a chaos factor, a quantum indeterminacy, wherein,

he argues on several levels, resides the essence of consciousness as opposed to mere intelligence, being as opposed to mere modeling thereof.

After giving the most lucid explanation of the metaphysics of Cabala that I've ever seen, he then seamlessly relates this to quantum mechanics and chaos theory and his self-conscious neural network.

This, in turn, develops into a kind of psychoanalytic exploration of Nazism, the war in Bosnia, the consciousness of serial killers, computer nerdism, and role-playing games, which, as it turns out, reveals the title, "The Roots of Evil" in English, as somewhat ironic, for it turns out that this evil is generated by a *detachment* from roots—metaphysical in Cabalistic terms, developmental in psychoanalytic terms, emotional in terms of detachment from flesh-and-blood reality on the part of the psychotic cyber role-playing serial killers.

And subtly more, for Darquandier himself, psychically not the most reliable of narrators, is himself "cut off from roots" in this sense, as becomes a bit more apparent as his psyche becomes somewhat more like those of his prey as he tracks them.

All this, mind you, conveyed in a fast-moving, violent, action story that delves deeper into the psychology of science fictional role-playing fandoms than those folks might find comfortable.

Could *Les Racines du Mal* have been published in a French SF line? Probably, a decade ago, somewhat doubtful now, the regular SF lines already feeling the cold breath of the bottom line à la America on the backs of their necks.

Be that as it may, Dantec avoided that publishing mode, opting instead for "roman noir" publication, still a genre, perhaps, but one currently with greater literary latitude in France than SF, and a larger demo-

graphic slice of the reading audience, largely because the packagers and marketeers, in the usual self-fulfilling prophecy, perceive that audience as more adult, more upscale, more general, and larger than that for the stuff with the rocketships on the covers.

Can *Les Racines du Mal* be published in an American SF line? Well, obviously the cost of translating 636 pages of French is a severe handicap, which is to say there would seem to be no way a small press, even a "giant small press," could do it as a modest investment in fringe publication.

But even were it written in English, it would probably have to be done by a small press à la *Ciphers*, or, paradoxically, in a major way as a "thriller," which is to say not that much unlike the way it was successfully published in France.

Trop hardi for the main commercial SF lines.

Which is another way of saying that there would seem now to be only individual solutions for individual writers or even individual books.

That's the bad news.

The historical story of "genre science fiction" as a coherent literary and social movement may indeed be drawing to a close, nor should we pretend that nothing of value will be lost thereby.

The good news is that from a longer historical perspective it may just turn out that "science fiction" as a marginalized genre of commercial fiction had to die in order to liberate science fiction as a visionary literature and the sincere dedicated writers thereof from both the constraints and the comforts of the cozy genre ghetto.

So that it might finally move into the center of cultural discourse where it belongs and is desperately needed.

And survive as something broader and deeper therein.

Along with, if we are fortunate, our planetary civilization. ○

SF CONVENTIONAL CALENDAR

by Erwin S. Strauss

Don't forget: the WorldCon's not over Labor Day this year. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For an explanation of con(vention)s, a sample of SF folksongs, and info on fanzines and clubs, and how to get a later, longer list of cons, send me an SASE (self-addressed, stamped #10 [business] envelope) at 10 Hill #22L, Newark NJ 07102. The hot line is (973) 242-5999. If a machine answers (with a list of the week's cons) leave a message and I'll call back on my nickel. When writing cons, send an SASE. For free listings, tell me of your con 6 months out. Look for me at cons as Filthy Pierre, playing a musical keyboard.—Erwin S. Strauss

AUGUST 1998

5-9—BucCONeer. For info, write: Box 314, Annapolis Junction MD 20701. Or phone: (410) 534-8136 (10 AM to 10 PM, not collect). Con will be held in: Baltimore MD (if city omitted, same as in address) at the Convention Center. Guests will include: Charles Sheffield, C. J. Cherryh, Stanley Schmidt, Milt Rothman, J. Michael Straczynski. The WorldCon. \$130 until 6/15. \$165 at the door.

7-9—OtaKon. (814) 867-3478. Hyatt Regency Crystal City, Arlington VA (near DC's National Airport). Anime.

7-9—FantastiCon. (954) 434-6060. Los Angeles CA. A commercial Star Trek event.

8-9—Creation. (818) 409-0960. Convention Center, Minneapolis MN. Commercial Hercules/Xena, and Star Trek, event.

13-16—ComicCon. (619) 544-0743. (AOL) cclweb. Convention Center, San Diego CA. Batiuk, Kaluta, T. Moore, C. Ware.

21-23—ThunderCon, Box 892545, Oklahoma City OK 73189. (405) 360-5626. (E-mail) lcon@telepath.com. Clarion. Media.

21-23—ThePrisonerCon, 871 Clover Dr., N. Wales PA 19454. (215) 699-2527. Portmeirion UK, where the TV show filmed.

21-24—Babylon 5 Wrap Party, Box 505, Reading RG1 7QZ, UK. Heathrow Radisson, London UK. Straczynski, Ellison.

22-23—AnimeNorth, Box 24090, DMPO, 900 Dufferin, Toronto ON M6H 4A0. (E-mail) dfts@interlog.com. Michener Institute.

22-23—Creation, 664A West Broadway, Glendale CA 91204. (818) 409-0960. Dearborn MI. A commercial media event.

28-30—BuboniCon, Box 37257, Albuquerque NM 87176. (505) 266-9030. Howard Johnson E. Linskold, Sawyer, Martin.

28-30—Nexus, c/o Volzer, Waldowstr. 53, Berlin D-13403, Germany. Estrel Residence/Congress Hotel. O'Hare, deLance.

29-30—VulKon, 12237 SW 50th, Cooper City FL 33330. (954) 434-6060. Orlando FL. R. Beltran. Commercial Trek event.

29-30—Creation, 664A West Broadway, Glendale CA 91204. (818) 409-0960. Cherry Hill NJ. A commercial media event.

SEPTEMBER 1998

3-6—DragonCon, Box 47696, Atlanta GA 30362. (770) 909-0115. Apparel Mart/Hyatt. Ellison, Niven, more. 10,000+ fans.

4-6—ConFluence, Box 3681, Pittsburgh PA 15230. Sheraton, Mars PA. Nancy Kress. Emphasizing written SF.

4-6—Fantasy Worlds, Box 249, Berkeley CA 94701. Marina Marriott. M. Z. Bradley, Hambly, Effinger, Gerjuoy, Beers.

4-6—BattleStar Galactica 20 Yahren Reunion, Box 31892, Seattle WA 98103. (206) 745-2700. Hilton, Universal City CA.

4-6—ConiFur, 2406 SW 308th Pl., Federal Way WA 98023. Clarion Airport, Seattle WA. Diana Vick. Anthropomorphics.

4-7—Mephit FurMeet, Box 771803, Memphis TN 38177. (E-mail) growltiger@mindspring.com. Holiday Inn E. Furies.

4-7—AnimeFest, Box 292094, Lewisville TX 75029. (301) 253-2366. (E-mail) info@animefest.com. Dallas TX.

4-7—Cult TV, Box 1701, Peterborough PE7 1ER, UK. (+44 [0] 1733) 205-009. Moat House, Telford England. Media.

5-6—VulKon, 12237 SW 50th, Cooper City FL 33330. (954) 434-6060. Ft. Lauderdale FL. A commercial Star Trek event.

AUGUST 1999

26-29—Conucopia, Box 8442, Van Nuys CA 91409. Anaheim CA. Pourmelle. The North American SF Con (NASFIC). \$70.

SEPTEMBER 1999

2-6—AussieCon 3, Box 266, Prospect Heights IL 60070. Melbourne, Australia. Gregory Benford. The WorldCon. US\$155.

AUGUST 2000

31-Sep. 4—ChiCon 2000, Box 642057, Chicago IL 60664. Bova, Eggleton, Baen, Turtledove, Passovoy. WorldCon. \$125.

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COVER STORY

One of the most acclaimed and inventive futurists of our day, recent Hugo-winner **Bruce Sterling**, returns to these pages next month with a vivid, fast-paced, and ingenious cover story that sweeps us along with two ambitious free-lance, high-tech spies who have the grit and chutzpah to penetrate into a bizarre Lost World where no outsider has ever been before: into the ultra-secret fortress of "Taklamakan," where strange dangers and even stranger wonders await them—some of which may well turn out to be fatal! This is Sterling at his freewheeling, quirky, surprising, immensely inventive, slyly amusing best, and we're willing to bet it shows up on next year's Hugo ballot. Our evocative cover painting is by Gary Freeman.

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Our huge novellas are by two of the most respected writers in the business today. Multiple Hugo and Nebula Award-winner **Robert Silverberg**, takes us sideways in time to a world where the Roman Empire never fell—imposing a Pax Romana over the entire world—and shows us what might be the last days of that Empire, in a fascinating look at how you spend your time when you know you're "Waiting for the End." Then critically acclaimed British author **Ian R. MacLeod**, brings us back a little closer to home, although still to one of the infinite variations on the Wheel of If, to an Alternate but all-too-plausible Britain where things went a little differently in the turbulent aftermath of World War I, for a powerful and compassionate look at what happens to the one man who knows things that no one is allowed to know, in a vivid and unforgettable trip to "The Summer Isles."

TOP-FLIGHT WRITERS

Multiple Hugo and Nebula Award-winner **Joe Haldeman** takes us to a hostile planet and gives us a glimpse of two scientific voyeurs who find themselves spying on an "Odd Coupling"—and who may end up paying for it with their lives; new writer **Cory Doctorow**, making a stylish *Asimov's* debut, takes us to the jungles of South America for a chilling look at a "Fall From Grace"; **Robert Reed**, one of our most popular and prolific writers, shows us how the societies of a distant future world may be turned upside-down forever by some revolutionary lessons learned from a humble little lizard called a "Whiptail"; hot new writer **Kage Baker** whisks us back in time for ring-side seats at "The Wreck of the Gladstone"; **Daniel Marcus** takes us inside the high-tech world of weapons research, for an unsettling and unblinking examination of the "Binding Energy" that ties all of our lives together; **R. Neube** teaches a very funny seminar—with some notes on practical applications—on "Quantum Commode Theory"; and **Danith McPherson**, making her *Asimov's* debut, gives us a poignant First Contact story, as she takes us "Through the Wall to Eggshell Lake."

EXCITING FEATURES

Robert Silverberg's "Reflections" column digs up "Dern Bones, Dern Bones"; **Paul Di Filippo** brings us "On Books"; and **James Patrick Kelly's** "On The Net," takes a look at "What's New?" in the Virtual World; plus an array of cartoons, poems, letters, and other features. Look for our mammoth October/November Double Issue on sale on your newsstand on September 15, 1998, or subscribe today.

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Rocky Mountain Radar introduces a device guaranteed to make your car electronically "invisible" to speed traps—if you get a ticket while using the product, the manufacturer will pay your fine!



■ **The Phazer will "jam" both radar and laser guns, preventing police from measuring your speed.**

As speed-detection technology has gotten more and more advanced, speeding tickets have become virtually unavoidable. And although devices exist that enable motorists to detect these speed traps, they are outlawed in many states... including mine.

active laser scrambler, the Phazer makes your automobile electronically "invisible" to police speed-detecting equipment. And unless you are a resident of Minnesota, Oklahoma or Washington, D.C., using the Phazer is completely within your legal rights.

How it scrambles radar. Police radar takes five to 10 measurements of a vehicle's speed in about one second. The Phazer sends one signal that tells the radar the car is going 15 m.p.h. and another signal that the car is going 312 m.p.h. Because police radar can't verify the speed, it displays no speed at all.

Works with laser, too! The Phazer also protects your vehicle from Lidar guns that use the change in distance over time to detect a vehicle's speed. The Phazer uses light-emitting diodes (LEDs) to fire invisible infrared pulses through the windshield. Laser guns interpret those pulses as a false indication of the car's distance, blocking measurement of your speed.

Encourage responsible driving. While the Phazer is designed to help you (and me) avoid speed traps, it is *not* intended to condone excessive speeding. For that reason, within the

first year, the manufacturer will pay tickets where the speed limit was not exceeded by more than 30%, or 15 miles per hour, whichever is less.

Double protection from speed traps. If the Phazer sounds good, but you prefer to be notified when you are in range of a police radar, the Phantom is for you. The Phantom combines the Phazer (including the Ticket Rebate Program) with a radar detector. It's

legal in every state except Minnesota, Oklahoma, Virginia and Washington, D.C. Ask your representative for more details!



Risk-free. Speed traps don't make my heart skip a beat anymore. The Phazer and Phantom are both backed by our risk-free trial and three-year manufacturer's warranty. Try them, and if you're not

satisfied, return your purchase within 90 days for a "No Questions Asked" refund.

The Phazer:
Three credit-card payments of
\$66.50 \$14 S&H

The Phantom:
Three credit-card payments of
\$116.50 \$18 S&H

Please mention promotional code 2546-13587.

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